

Township Assessor — Introductory Course

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PTAX-1-T (R-3/07)

Course 1-T Outline

Township Assessor — Introductory Course

Glossary

Math for Assessors

Unit 1 An Overview of the Property Tax Cycle and the Appeal Process

Unit 2 Qualifications, Duties, and Responsibilities of Assessors and the Property Tax Code

Unit 3 Using the Sales Comparison, or Market Approach, to Arrive at Value

Unit 4 Using the Income Approach to Arrive at Value

Unit 5 Using the Cost Approach to Arrive at Value

Unit 6 Mass Appraisal and Residential Square Foot Schedules

Unit 7 Land Valuation

Unit 8 Commercial Square Foot Schedules

Unit 9 Sales Ratio and Equalization

Unit 10 Special Properties and Exemptions

Unit 11 Mapping and the Property Index Numbering System

Unit 12 Ethics and Resources

Review

*Exam 50 multiple choice questions

* A score of 70 percent (35 correct answers) is necessary to pass this course.



PTAX-1033 Course Evaluation

Please take a few minutes to complete this course evaluation form. Your opinions are important to us. We rely on the information that you provide to help us meet the future education needs of the assessment community. If you need additional space, please use the back of this form. Thank you for your cooperation and assistance.

Course: _____ Instructor: _____

1 What were the strengths of this course?

2 What were the weaknesses of this course? How could these weaknesses be corrected?

3 What are the instructor's strengths?

4 What are the instructor's weaknesses? How could these weaknesses be corrected?

5 Were the classroom facilities adequate? Describe any improvements needed.

6 What are your suggestions for new courses?

Send your completed form to: ATTN: REBECCA REDENBO 4-511 or email to: rebecca.redenbo@illinois.gov

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Glossary — 1-T

Ad valorem — according to value.

Ad valorem tax — a tax levied according to value.

Actual age — the number of years that have elapsed from the year of construction to the present date.

Assessed value — the value placed upon property after multiplying its market value by the level of assessment.

Assessment/sales ratio study — used to indicate the percentage relationship of the prior year's equalized assessed value to actual market value for real property in certain categories and in geographical areas.

Building residual — the building value; sale price, less the lot value, equals building residual.

Coefficient of dispersion (COD) — average deviation of a group of assessment ratios taken around the median; used to measure uniformity of assessments.

CDU Rating — modifies the normal age depreciation of an improvement according to the appraiser's determination of the improvement's condition, desirability, and utility.

Cost approach — calculating the cost of reproducing the improvements, subtracting accrued depreciation, and adding land value.

Cost factor — used to adjust the schedules in the manual for differences in local construction labor and material rates.

Depreciation — loss of value from any cause, *i.e.*, physical depreciation, functional obsolescence, and economic obsolescence.

Depth factor — the factor used to adjust the front foot price of a lot because the front portion of a lot is deemed more valuable than the rear portion.

Effective age — age of an improvement based on the improvement's CDU rating; effective age does not always equal actual age.

Equalization factor — a factor applied to each jurisdiction so all jurisdictions assess property at the same level of market value.

Equalized assessed value (EAV) — assessed value multiplied by any applicable equalization factor equals EAV.

Front foot price — supposes that each foot of lot frontage is worth the same dollar amount; used to indicate lot value.

Improvement — any structure attached to, lying upon or within the land, that may not be removed without physical stress.

Income approach — calculating the present worth of the income from an income-producing property.

IRV formula — formula for income approach to value.
 $I (\text{income}) = R (\text{capitalization rate}) \times V (\text{market value})$.

Legal description — a description in words or numbers judged legally sufficient to locate and identify a parcel of land.

Level of assessments — ratio of equalized assessed value to sale price.

Market value — most probable sale price of a property, in terms of money in a competitive and open market, assuming that the buyer and seller are acting prudently and knowledgeably, allowing sufficient time for the sale, and assuming that the transaction is not affected by undue pressures.

Mean — an arithmetic average.

Median — the middle value of a group of numbers after they have been ranked.

Mode — the number that occurs most frequently in a set of numbers.

Property index number (PIN) — 14 numbers that reflect the geographical location, legal description, and special use of a parcel of land.

Property record card (PRC) — used to record individual property appraisals used for assessment.

Quality grade — used to adjust schedules in the manual for differences in the quality of construction materials and workmanship.

Replacement cost new (RCN) — represents current cost of replacing an improvement.

Rectangular survey system — also known as the Governmental Survey System, established in 1785; a system in which land is divided in a grid like fashion consisting of principal meridians, baselines, townships, ranges, and sections.

Remaining economic life (REL) — period of time over which a prudent investor would reasonably expect to recapture his investment.

Sales comparison, or market approach — calculating the value of properties by observing and analyzing the selling prices of comparable properties.

Math for Assessors

This guide explains mathematical terms and illustrates frequently used formulas and equations. In addition, the last portion of this section explains the components, computations, and use of the data bank, located on the commercial property record card (PRC-4). Proceed to Unit 1 if you feel proficient in your math skills and do not need to review this material.

Percentages and decimals

Percentage (%) denotes a standard of measurement that represents a whole quantity divided into 100 equal parts. For example, 20 percent refers to 20 parts of a total of 100 parts, which in terms of fractional values is written as $20/100$.

Values are often written in percentages or decimals, and it is important to understand both the relationship between the two and the process of converting one to the other.

To convert from a percent to a decimal, divide the value by 100, or simply move the decimal point two places to the left. Divide 20 by 100, and it becomes .20. The result is the same if the decimal point were moved two places to the left. For example, 5% becomes .05. (A "0" must be added to the left of the "5" to provide the second place before the decimal point (located 5.%) can be moved two places to the left in this example.) .05 is also read as 5 hundredths or 5 parts of 100 parts. Similarly, $8\frac{1}{2}\%$, or 8.5%, becomes .085.

To convert from a decimal to a percentage, multiply the value by 100, or simply move the decimal point two places to the right. For example, .30 become 30%, .06 becomes 6%, and .0975 becomes 9.75%.

Exercise 1

Converting decimals to percents and percents to decimals*

When converting from a percent to a decimal, divide by 100 or move the decimal two places to the left.

$$10\% = 10 \div 100 = .10$$

When converting from a decimal to a percent, multiply the decimal by 100 or move the decimal two places to the right.

$$.03125 \times 100 = 3.125\%.$$

	Decimal	Percent	\$/ \$100 AV
1	_____	12	_____
2	_____	1.75	_____
3	.0325	_____	_____
4	.0004	_____	_____
5	_____	_____	\$2.55/\$100
6	_____	.06	_____
7	.1234	_____	_____
8	_____	_____	\$.033/\$100
9	.0225	_____	_____
10	_____	.450	_____

Percentages and decimals can be added, subtracted, multiplied, or divided.

Adding	20%	.20
	+ <u>5%</u>	+ <u>.05</u>
	25%	.25

Subtracting	20%	.20
	- <u>5%</u>	- <u>.05</u>
	15%	.15

Multiplying	20%	.20
	x <u>5%</u>	x <u>.05</u>
	1%	.0100

	20	20.00
	x <u>5%</u>	x <u>.05</u>
	1.00	1.0000

Dividing	20%	÷	5%	=	4
	.20	÷	.05	=	4
	20	÷	5%	=	400
	20	÷	.05	=	400

Factors

The factoring process involves the adjustment of a number by multiplication, resulting in a product either more or less than the original value.

There are many types of factors that may be used by an assessor to accurately value the individual characteristics of a parcel of property. Some examples include quality grade, remaining economic life (REL) and depreciation (DEP), cost, and time.

Examples of factoring

The Illinois Real Property Appraisal Manual's (IRPAM) replacement cost new (RCN) value of \$96,500 must be adjusted to reflect a 4% increase in value due to a cost factor. To determine the factor to be used in this situation, add the amount of the increase from 100%. 100% represents the original value.

$$\$96,500 \times 104\% = \$100,360 \text{ or } \$96,500 \times 1.04 = \$100,360$$

Examples of factoring

The IRPAM's RCN value of \$96,500 must be adjusted to reflect a 4% decrease in value due to a cost factor. To determine the factor to be used in this situation, subtract the amount of the decrease from 100%. 100% represents the original value.

$$\$96,500 \times 96\% = \$92,640 \quad \text{or} \quad \$96,500 \times .96 = \$92,640$$

Chain multiplication

Chain multiplication is the process of multiplying a series of numbers or factors by one another in order to produce one number or factor.

Examples of chain multiplying

Front feet \times \$/FF \times depth factor = value of the site

$$50' \times \$100/\text{FF} \times 1.04 = \$5,200$$

Cost factor \times design factor \times neighborhood factor = adjustment factor

$$.96 \times 1.22 \times 1.15 = 1.346880 \quad \text{or} \quad 1.35$$

Land values

The assessor must place a separate assessment on both the land, or site, and the improvements. Common land values that are used in this process are dollar per square foot values and dollar per acreage values. Before either dollar values can be determined, the total square footage of area, or the total acreage, must be calculated for the site.

To determine the square footage of a site, multiply the length of the site by the width of the site. $L \times W$

For irregularly shaped sites, it may be necessary to divide the site into rectangles and triangles and add them together. The area of a triangle is found by multiplying the base by the height and dividing by 2. $\frac{B \times H}{2}$

2

To convert total square footage into total acreage, divide the square footage by 43,560, the total square footage in an acre.

Exercise 2

Land values*

	Site shape	Measurements	Square footage	Approx. acreage
1	Rectangular	400' x 800'	<u>320,000</u>	<u>7.3 (7.34)</u>
2	Rectangular	320' x 480'	<u> </u>	<u> </u>
3	Triangular	320' x 480'	<u>76,800</u>	<u>1.8 (1.76)</u>
4	Triangular	150' x 180'	<u> </u>	<u> </u>
5	Square	150' x 150'	<u> </u>	<u> </u>
6	Triangular	600' x 900'	<u> </u>	<u> </u>

LAR Formula

The county clerk has the responsibility of calculating tax rates and extending taxes against individual properties. The county clerk must also ensure that no tax rate exceeds any limitation that may be imposed by law.

Although the local assessors do not calculate tax rates or extend property taxes, taxpayers often contact the assessor upon receipt of their tax bills.

A tax rate is calculated by dividing the levy by the tax base for each taxing district. This mathematical process is referred to as the LAR formula.
$$\frac{L}{A \times R}$$

Levy (L) — This is the amount of money a taxing district determines is necessary to raise from property taxes.

Tax base (A) — This is the amount of taxable EAV after removing all qualified exemptions and including all applicable values for state-assessed property in the taxing district.

Tax rate (R) — This is the percentage applied to the taxable EAV in the taxing district.

If any two values are known, the third value can easily be determined with this formula. If you cover up the letter representing the component you are trying to determine, the formula for determining the value of that component is left.

$$\frac{\text{L}}{\text{A} \times \text{R}}$$

To find the levy, cover up the "L" in the formula so you are left with $\text{A} \times \text{R}$.

Multiply the tax base "A" by the tax rate "R."

$$\frac{\text{L}}{\text{A} \times \text{R}}$$

If you know the levy and the tax rate, to find the tax base, cover up the "A" in the formula so you are left with $\frac{\text{L}}{\text{R}}$.

Divide the levy "L" by the tax rate "R."

$$\frac{\text{L}}{\text{A} \times \text{R}}$$

To determine the tax rate, cover up the "R" in the formula so you are left with $\frac{\text{L}}{\text{A}}$.

Divide the levy "L" by the tax base "A."

To determine L, multiply A by R. For example: If a taxing body has a tax base of \$25 million and a tax rate of 2%, or .02, the amount to be raised from property taxes is \$500,000.

$$\$25,000,000 \times 2\% (.02) = \$500,000$$

To determine A, divide L by R. For example: If a taxing body has a tax levy of \$500,000 and a tax rate of 2%, or .02, the tax base is \$25 million.

$$\frac{\$500,000}{2\% (.02)} = \$25,000,000$$

To determine R, divide L by A. For example: If a taxing body has a levy of \$500,000 and a tax base of \$25 million, the tax rate is .02, 2%, or \$2.00/\$100 AV.

$$\frac{\$500,000}{\$25,000,000} = .02$$

Exercise 3

Tax rates*

	L	A	R
			2.2000%
1	\$660,000	\$30,000,000	<u>(or .022000)</u>
2	<u>\$400,000</u>	\$10,000,000	4.0000%
3	\$55,000	<u>\$8,000,000</u>	.6875%
4	<u> </u>	\$95,480,000	2.3615%
5	\$200,000	\$50,000,000	<u> </u>
6	\$90,000	<u> </u>	.7500%
7	\$44,600	\$54,257,900	<u> </u>
8	\$150,000	<u> </u>	.3550%
9	<u> </u>	\$12,750,000	.6544%

Individual tax bill

There are several processes involving different officials that are followed in determining an individual tax bill for most types of property.

- 1 Property is valued by the assessor to determine fair market value (MV).
- 2 The assessor determines the assessed value (AV) by dividing the fair market value by 3, or multiplied by 33.33% (.3333).
- 3 Equalization factors (township multiplier, county multiplier, and state multiplier) are applied to the assessed value to derive the equalized assessed value (EAV) for the parcel of property.

- 4 All qualified exemptions, such as various homestead exemptions, are deducted from the EAV, the remaining value becomes the taxable EAV.
- 5 The taxable EAV is multiplied by the applicable tax rate for each of the taxing districts in which the property is situated.
- 6 All of the amounts due each taxing district are added to obtain a total tax bill. Another way to produce the total tax bill is to multiply the taxable EAV by the aggregate tax rate. The aggregate rate is the total of all the district rates in which the property is situated.

Exercise 4

Tax bills*

Determine the tax bill on a residential property with a market value of \$96,750 and an EAV of \$32,250. The property is situated in six taxing districts. Compute the tax rate for each taxing district (levy \div taxable EAV) and then determine the amount of tax (taxable EAV \times rate).

	District	Levy	Taxable EAV	Rate	Tax
1	School	\$996,173	\$31,425,000	<u>3.1700</u> %	\$ <u>1,022.33</u>
2	County	\$473,630	\$94,726,000	<u>.5000</u> %	\$ <u>161.25</u>
3	Township	\$178,994	\$25,482,000	_____ %	\$ _____
4	City	\$144,661	\$15,272,000	_____ %	\$ _____
5	Fire	\$110,707	\$37,846,000	_____ %	\$ _____
6	Library	\$76,360	\$15,272,000	_____ %	\$ _____

Aggregate tax rate = _____ % \times taxable EAV \$ _____ =

Tax bill \$ _____

Formulas

Income approach	$\frac{I}{R \times V}$
Net income	gross rent - expenses
Gross income multiplier (GIM)	$\frac{\text{sales price}}{\text{gross rent}}$
Unit price	$\frac{\text{sales price}}{\text{no. of units}}$
Room price	$\frac{\text{sales price}}{\text{no. of rooms}}$
Adjusted sales price	sales price (+ or -) adjustments
Adjusted unit price	$\frac{\text{adjusted sales price}}{\text{no. of units}}$
Adjusted room price	$\frac{\text{adjusted sales price}}{\text{no. of rooms}}$
Average apartment unit size	$\frac{\text{SFFA* of finished portion of building}}{\text{no. of units}}$
*Square foot of floor area (SFFA) = SFGA x no. of floors	

Data Bank	
S/F Ground Area	
Eff. Perim L/F	
C/F of Bldg.	
S/F Wall Area	
Wall Ratio	
Sty.	Schl.

- **SFGA** — square feet of ground area $L \times W$
- **EP** — effective perimeter $L + W + L + W$
(Party walls are factored at 60 percent of the length of the wall.)
- **CF** — cubic feet $SFGA \times OH$
- **SFWA** — square feet of wall area $EP \times OH$
- **WR** — wall ratio $CF \div SFWA$
- **OH** — overall height
(Basement floor to the eaves.)

[illegible]

Commercial property record card (PRC-4)

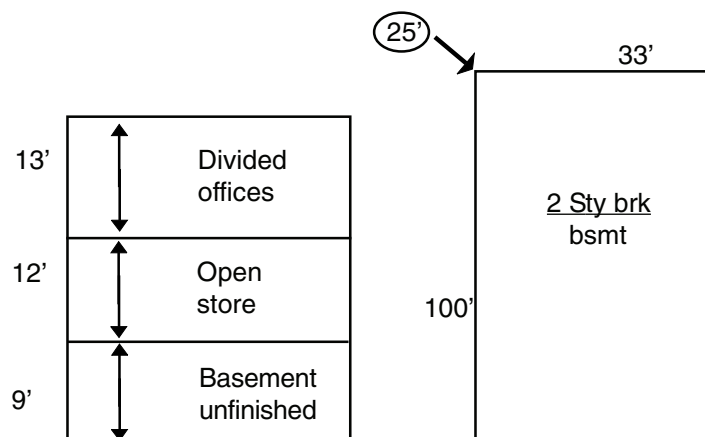
Each commercial property record card (PRC-4), shown on the opposite page, must be completed in detail before the assessor can accurately compute the improvements upper limit of value, or its RCN. The assessor first lists the data regarding the physical construction of the building on the PRC-4. Working with the PRC-4 and the appropriate cost schedules, the commercial cost schedule, subsidiary schedule, or the component-in-place (CIP) schedules, the assessor has to cost out each floor of the improvement, adjust cost values when applicable, cost out various components found in the building, and arrive at an RCN for the improvement. A thorough understanding of the relationship between the PRC-4 and the cost schedules is necessary for the assessor to calculate a valid RCN value.

Data bank

Data bank values impact the final value of the improvement. Consequently, it is very important that these values are accurately computed.

Data Bank	
S/F Ground Area	
Eff. Perim L/F	
C/F of Bldg.	
S/F Wall Area	
Wall Ratio	
Sty.	Schl.

Building dimensions are found on the building and floor diagrams.



Square feet of ground area (SFGA)

The **square feet of ground area (SFGA)** is the first component of the data bank. This value is obtained by multiplying the length of the building by the width of the building.

In the example on the previous page, the structure is 33' x 100'. Apply the formula

$$\text{Length} \times \text{width} = \text{square foot of ground area}$$

to arrive at a SFGA of 3,300 square feet for the structure.
(33' x 100' = 3,300 SF)

Much of the cost is directly related to the SFGA. The size adjustment factor is also determined by the SFGA of the building.

Effective perimeter (EP)

The second component of the data bank is the **effective perimeter (EP)**. This is the linear measurement around the outside boundaries of the ground floor.

In the example, the structure is 33' x 100'. Apply the formula

$$\text{length} + \text{width} + \text{length} + \text{width} = \text{effective perimeter}$$

to arrive at a EP of 266' for the structure. (33' + 100' + 33' + 100' = 266')

There may be instances when the subject building shares a common wall or walls with another building. This type of wall is referred to as a **party wall**. Party walls are often found in older downtown commercial structures. Years ago, the first commercial structure was built with four walls. When the adjoining structure was constructed, rather than building four exterior walls for the structure, only three walls were constructed and the builder tied in to the existing wall of the previously constructed building for the fourth wall. Due to fire hazards, this practice is no longer as widespread as it once was.

If a structure contains a party wall, the length of the shared wall is adjusted by 60 percent when calculating an EP.

For example, if one of the 100' walls of the subject building was a shared or party wall, that wall would be factored at 60 percent or 60' instead of 100'. To calculate the EP, add 100' + 33' + 60' + 33'. This structure, if it had a party wall, would have an EP of 226' instead of 266'.

Cubic feet of building (CF)

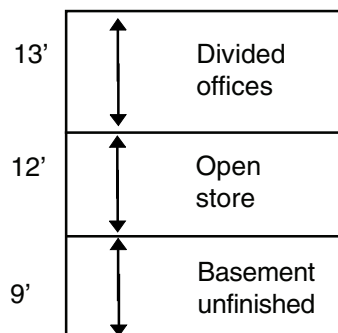
The third component of the data bank is the **cubic feet of the building (CF)**. This is computed by multiplying the square feet of the ground area (SFGA) by the **overall height (OH)**. OH includes the height of a basement, as well as the **eave height**, which is the height from the ground level to the eaves.

$$CF = SFGA \times OH$$

In this example, the square feet of the ground area is 3,300 square feet. The overall height of the structure is 34' (9' basement + 12' first floor + 13' second floor).

$$(CF = SFGA \times OH \quad 3,300 \times 34 = 112,200)$$

Refer to the elevation diagram portion of the PRC-4 below and add the wall heights to obtain the overall height of the building.



Square feet of wall area (SFWA)

The **square feet of wall area (SFWA)** is the fourth component of the data bank. This value is found by multiplying the EP by the OH.

$$(SFWA = EP \times OH \quad 266' \times 34' = 9044)$$

Wall ratio (WR)

The final component of the data bank is the **wall ratio (WR)**. This value is found by dividing the CF of the structure by the SFWA.

$(WR = CF \div SFWA)$ Carry this figure 2 decimal places.

In this example, the CF of the structure is 112,200. The SFWA is 9,044. Applying the formula, you arrive at a WR for the structure of 12.41. $(112,200 \div 9,044)$. The WR value is used in conjunction with the commercial cost schedule to determine the shape adjustment factor for the subject building.

Completing the data bank

This example shows how to complete the data bank portion for the structure shown at the top of the following page. Read through the first example and then complete the three remaining columns of the data bank for the structures listed at the top of each column.

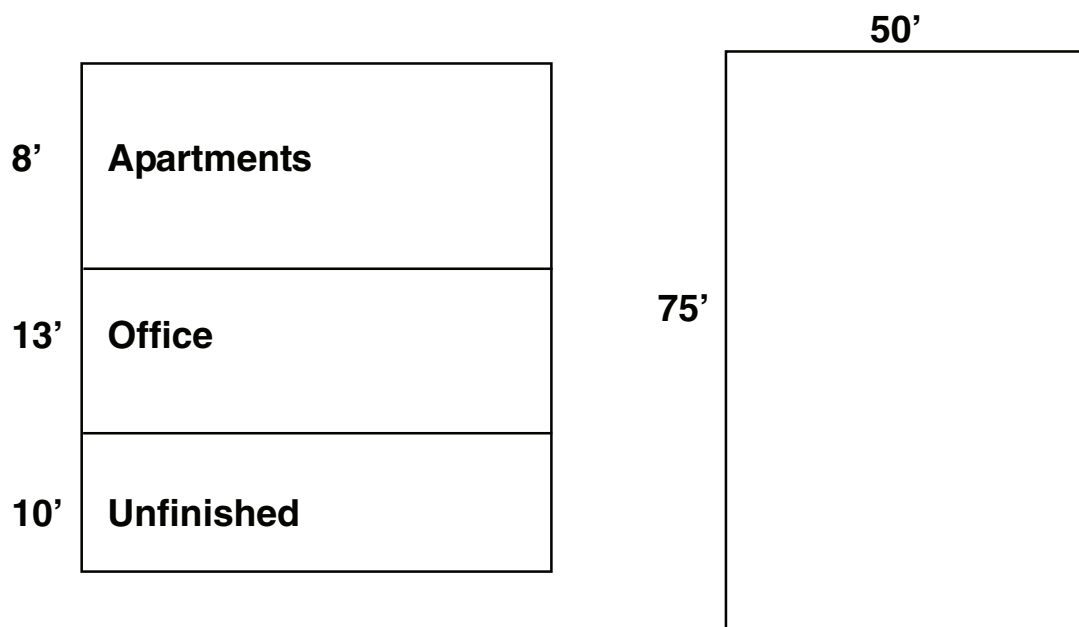
The first structure has a length of 36', a width of 40', and a height of 28'. Since no other information is given regarding height, assume that the height given is the overall height for the purposes of these calculations.

- 1 To compute the SFGA, multiply the length of 36', by the width of 40', for a total of 1,440 square feet for the structure.
- 2 To compute the EP, add the length of 36', the width of 40', the length of 36', and the width of 40', for a total of 152' EP for the structure.
- 3 To compute the CF, chain multiply the length of 36', by the width of 40', by the OH of 28', for a total of 40,320 CF for the structure.
- 4 To compute the SFWA, multiple the EP of 152', by the OH of 28', for a total of 4,256 SFWA for the structure.
- 5 To compute the WR, divide the CF of 40,320, by the SFWA of 4,256 square feet, for a WR of 9.47.

Exercise 5 — Data bank

Complete the remaining three columns.

	2 Story L36 W40 H28	2 Story L48 W50 H28	2 Story L44 W50 H28	3 Story L72 W48 H42
S/F ground area (SFGA)	1,440'			
Eff. perim L/F (EP)	152'			
C/F of bldg. (CF)	40,320			
S/F wall area (SFWA)	4,256			
Wall ratio (WR)	9.47			



Data Bank

S/F ground area (SFGA)	
Eff. perim L/F (EP)	
C/F of bldg. (CF)	
S/F wall area (SFWA)	
Wall ratio (WR)	

*Answers are located in the answer key at the back of this manual.

Compute the following items in the data bank for this 2-story commercial building with a full basement.

- 1 Compute the EP if one of the 75' walls is a party wall.

- 2 Compute the EP if both of the 75' walls are party walls.

Unit 1

An Overview of the Property Tax Cycle and the Appeal Process

This unit covers the history of property taxation, gives an overview of the property tax system, the property tax cycle, and the appeal process.

The purpose of this unit is to provide a basic understanding of property taxation, the establishment of value for tax purposes, and the two-year property tax cycle, beginning with the creation of the assessment books and concluding with the sale of a lien on real estate due to nonpayment of taxes.

Learning objectives

After completing the assigned readings, you should be able to

- outline the flow of the assessment books, from the creation of the books through their use in the preparation of the collector's books,
- identify the roles various township and county officials play in the property tax cycle, and
- identify established completion dates for various processes.



Terms and concepts

Real property
Personal property
Ad valorem tax
Market value
Assessment cycle
Assessment
Statutory level of assessment
State-assessed property
Assessment date
Equalized assessed value (EAV)
Budget and levy cycle
Levy

An overview of property tax

When Illinois became a state in 1818, the constitution contained a provision for taxing property in direct proportion to the value of property. From 1818 to 1930, amendments to the constitution provided the state with various powers concerning property taxation. The last year the state levied real estate taxes was 1932. Since then, property taxes have been levied at the local level.

Property tax is governed by the Property Tax Code. The code is Act 200 in Chapter 35 of the Illinois Compiled Statutes. Property tax is a local tax assessed by the county or township. Revenues from property tax are collected and spent at the local level. The department issues guidelines, determines county equalization factors, approves non-homestead exemptions, distributes assessment manuals, provides technical assistance, and assessment training to local assessing officials.

Property can be divided into two classes — real and personal. **Real property** is land and anything permanently attached to the land, *e.g.*, buildings and fixtures permanently or constructively attached to a building. **Personal property** is all property that is not real property. Some examples of personal property include automobiles, livestock, money, and furniture.

All owners of real property must pay property taxes unless specifically exempted by state law. Owners of business, industrial, agricultural, and residential property all pay property taxes directly. Renters also contribute to the property taxes, but do so indirectly through their rent. Landlords consider taxes as a cost of doing business and adjust their rents to cover this cost.

In Illinois, taxpayers now pay property taxes only on their real property. Personal property tax for individuals was abolished by the 1970 Illinois Constitution. Corporations, partnerships, limited partnerships, joint ventures, and similar entities continued to pay taxes on personal property until 1979. These business entities now pay a replacement tax on income or invested capital. Business entities pay this tax to the department,

who distributes the monies to the local taxing districts in proportion to the amount received from the personal property tax.

Property taxes are raised, spent, and distributed locally. Property taxation produces more than three-fourths of the total tax revenue and finances a major part of the services provided by local governmental units which benefit citizens and their property. The largest share of the property tax goes to school districts.

Property tax is a tax that is based on the value of the property owned, and is assessed according to its value. For this reason it is often called an *ad valorem* tax. Value is a complicated concept with many definitions. Most real property in Illinois must be assessed based on its value in the open market. **Market value** is the most probable sale price of a property in terms of money in a competitive and open market, assuming that the buyer and seller are acting prudently and knowledgeably, allowing sufficient time for the sale, and assuming that the transaction is not affected by undue pressures.

The determination of market value for tax purposes is the job of assessors, who use one or more of the following three basic approaches to estimate market value:

- 1 **sales comparison, or market approach** — calculating the value of properties by observing and analyzing the selling prices of comparable properties;
- 2 **cost approach** — calculating the cost of reproducing the improvements, subtracting accrued depreciation, and adding land value; and
- 3 **income approach** — calculating the present worth of the income from an income-producing property.

The determination of market value requires skilled and knowledgeable assessors. To encourage assessing officials to improve their knowledge and skill in determining value, the state pays a stipend to any CCAO, assessor, deputy assessor, or member of a board of review, or interim board of review who earn certain professional designations and continue their education each year.

The property tax cycle

The property tax cycle — from the assessment of property to the collection and distribution of taxes — takes nearly two years for most property. Some steps take place concurrently, but basically it can be divided into six steps.

- | | |
|----------------|-------------------------------|
| 1 assessment | 4 levy |
| 2 review | 5 extension |
| 3 equalization | 6 collection and distribution |

The assessment cycle

The **assessment cycle** begins with the creation of the assessment books and ends with the review of the assessments by the board of review. The assessment cycle takes from nine to twelve months to complete, depending on the size of the county and the number of assessment complaints filed with each board of review. The steps in the assessment cycle are

- 1 assessment,
- 2 review, and
- 3 equalization.

Step 1: Assessment

An **assessment** involves four steps

- 1 identifying the real property within a jurisdiction,
- 2 listing it,
- 3 appraising it, and
- 4 placing a value for it on the tax rolls.

This value is known as the assessment and is the basis for determining what portion of the total tax burden each property owner will bear. In Illinois, the **statutory assessment level** is one-third or 33 1/3 percent of market value, unless set otherwise by law.

Most property is locally assessed by township and county officials. In all counties except Cook, St. Clair, and the 17 commission counties, township or multi-township assessors have primary assessment responsi-

bility. There are over 950 elected assessors in Illinois. Assessors must qualify to hold office on the basis of prescribed course work in assessment techniques.

In the 17 commission counties — Alexander, Calhoun, Edwards, Hardin, Johnson, Massac, Menard, Morgan, Monroe, Perry, Pope, Pulaski, Randolph, Scott, Union, Wabash, and Williamson — that have no township level of government, the supervisor of assessments has the primary assessment responsibility. In Cook County, the county assessor takes the primary responsibility for the assessment of property.

Supervisors of assessments and county assessors are referred to as chief county assessment officers (CCAO). The work of township and multi-township assessors is subject to review and, if necessary, revision by the supervisor of assessments. The supervisor of assessments is usually appointed by the county board. The supervisor of assessments must have two years of relevant experience, pass a qualifying examination administered by the department, and possess a professional appraisal designation specified in the statutes. Some counties have an elected county assessor or supervisor of assessments.

A few types of property are assessed by the state, such as railroad operating property, railroad right-of-way and track, and pollution-control facilities that have been certified as such by the Illinois Environmental Protection Agency. The value of **state-assessed property** is a small percentage of the value of all taxable property. State-assessed property is valued by the department and these assessments are certified to the appropriate county clerks for inclusion in local tax bases.

In Illinois, property is to be viewed, inspected, and revalued once every four years in all counties but Cook, which has a three-year reassessment cycle. Between these reassessment cycles, assessors may revalue any property whose value has changed or is incorrect. Farm acreage must be reassessed annually.

The **assessment date** in Illinois is January 1. On that date, the assessment cycle begins for all real property which must be valued as to its condition at that point and time. The Property Tax Code requires that on or before this date, the CCAO call on the county clerk to receive the assessment books listing all parcels of real estate to be assessed in each of the townships in the county. The assessment book has columns for the property index number (PIN), the name of owner, the assessment by the township assessor, the assessment by the CCAO, and the assessment by the board of review for each parcel. The CCAO conducts a meeting with the township assessors to give instructions to the assessors, inform them of any changes, and give them the assessment books.

Procedures for the establishment of farmland assessments begin on May 1, in the year prior to the assessment date, with the certification of proposed values from the department to the CCAO. These values are used to make the assessments for the assessment year beginning on the following January 1.

In non-commission counties, other than Cook, DuPage, and Lake, township and multi-township assessors should complete their assessments by April 15. After assessors have certified their assessment books as being correct and complete, they return them to the CCAO, who has until the third Monday in June to examine the books and make any changes necessary to achieve fairness. Assessment books are then given to the county board of review for subsequent review and equalization.

Taxpayers have the right to inspect property record cards and other assessment records for any property, subject to reasonable rules and regulations established by local authorities.

Steps 2 and 3: Review and equalization

Review and intra-county equalization are performed by the CCAO and the board of review. While both the CCAO and the board of review have the power to equalize, normally only one will do so. Review at the supervisor of assessment's level is generally an informal

review of the assessment roll. Formal review on a complaint by the taxpayer takes place at the board of review.

The CCAO examines the assessment book and makes any changes that will make assessments more equitable. He or she may equalize assessments by applying a factor to all assessments for either a township, an area, or a class of property. All assessments that have been changed from the previous assessment year must be published in a newspaper. However, only the equalization factor must be published for properties that had assessment changes due solely to equalization. Individual notices must be mailed to taxpayers whose assessments were changed for any reason other than an equalization factor.

Any assessment change made by the CCAO is entered in his or her column in the assessment books. The CCAO certifies the assessment books to the county board of review by the third Monday in June, and compiles and sends a tentative abstract of assessments to the department. The department uses the information on the abstract to determine if the level of assessments has changed since the data for the department's sales ratio study was collected. The department then certifies a tentative inter-county equalization factor, often called a "tentative state multiplier," to the CCAO and county clerk and holds a public hearing on the factor.

The board of review convenes on the first Monday in June (Section 16-30) in all counties but DuPage and Cook (Sections 9-230 and 16-105), and completes its work during the period of September through December, depending on the population of the county and the number of complaints filed with the board. The board has several important duties in the assessment cycle. For prior years, the board assesses property that was inadvertently omitted from the assessment rolls. They hear the formal complaints of taxpayers and make any necessary assessment changes. The board can also make individual assessment changes on its own volition. However, the taxpayer and township assessor must be notified of these changes and given an opportunity to be heard before the board.

In addition, the board reviews applications from property owners, such as churches, schools, and local governmental units who believe their properties should be exempt from property taxes. The board makes a recommendation to the department as to whether these properties should be exempt. The department makes the final determination. The board of review also equalizes assessments by township, area, or class of property and sends a report on equalization to the department.

Any assessment changes are entered in the board of review’s column in the assessment books. Any change by the board of review, whether it is an individual assessment change or a change resulting from equalization, must be published and individual notices must be sent to the affected taxpayers. The board of review then certifies the assessment books to the county clerk.

Completion of the assessment cycle

After the county clerk receives the assessment books from the board of review, the clerk prepares an abstract of assessments that the department uses in the computation of the final equalization factor for the county. Once the county clerk receives the department’s certification of the final equalization factor and the certification of the state-assessed railroad operating property and pollution control facilities, he or she applies the final equalization factor to the assessed values of the board of review to obtain the **equalized assessed value (EAV)**. These EAVs are the final values used to compute tax rates and to extend taxes. This completes the assessment cycle.

Assessment cycle

County clerk	Prepares two sets of real estate books and delivers to the CCAO by January 1.
CCAO	Meets with township assessors before January 1 and establishes guidelines; delivers one set of books to township.

Township assessor	Values real estate as of January 1 and returns books to CCAO by April 15 (October 15 in Lake County and November 15 in DuPage County); can equalize.
CCAO	<ol style="list-style-type: none"> 1 Reviews assessments made by township assessors; makes changes. 2 Equalizes assessments within county by class, by area, or by township. 3 Mails change of assessment notices to taxpayers. 4 Publishes changes in newspaper of general circulation. 5 Delivers books to board of review by the third Monday in June. 6 Prepares tentative abstract of assessment report; mails report to the department.
Department of Revenue	<p>Develops tentative equalization factor; publishes factor in newspaper.</p> <p>Holds public hearing.</p>
Board of review	<ol style="list-style-type: none"> 1 Assesses omitted property. 2 Acts on non-homestead exemptions and mails to department for approval. 3 Hears complaints and makes assessment changes on any property when deemed necessary. 4 Mails change of assessment notices to taxpayers. 5 Equalizes assessments within county by class or area, if necessary. 6 Delivers books to county clerk. 7 Mails report on equalization to department. 8 Publishes changes in newspaper of general circulation.
County clerk	Prepares final abstract of assessments and mails to department.
Department of Revenue	Certifies final equalization factor and mails to county clerk.
County clerk	Applies equalization factor to all local assessments, except farmland, coal rights, farm buildings, and state-assessed properties.
Department of Revenue	Certifies state assessments and mails to county clerk.
County clerk	Totals the EAV for each taxing district.

Budget and levy cycle

While the assessment cycle determines the allocation of the tax burden among property owners, the **budget and levy cycle** determines the total amount of property tax to be allocated to the property owners. The three steps in the budget and levy cycle are

- 1 levy,
- 2 extension, and
- 3 collection and distribution.

Step 1: Levy

The budget and levy cycle begins in the fall of the assessment year when most boards of review are still in session. At this time, taxing districts have generally determined their budgets for the next fiscal year and have held a public hearing on this budget. Taxpayers who are concerned with the amount of property tax distributed to taxing districts should attend these public hearings and voice their opinions concerning how much money will be needed from the property tax.

After the budget is approved, the taxing districts can then calculate the amount of revenue needed from the property tax. This amount is certified to the county clerk as the property tax **levy** on or before the last Tuesday in December. The amount levied is the amount that taxpayers will pay on their property tax bills in the following year.

Step 2: Extension

Once the assessment cycle is complete, the county clerk receives the assessment books from the board of review and applies the county equalization factor from the department to the individual assessments. With this information, and the levies received from the taxing districts, the county clerk proceeds with the extension of taxes. Extension is a two-step process that includes the computation of tax rates and the application of those rates to the EAVs of the individual parcels of real estate.

In the first step, tax rates are computed by dividing a taxing district's levy by the total EAV of all parcels of property in the taxing district. Some tax rates are subject to statutory maximums. If the calculated rate is above the maximum rate, the county clerk uses the maximum rate.

**Example
computation
of tax rate**

$$\begin{aligned} \text{Levy} &= \$1,000 \\ \text{EAV of property in the district} &= \$100,000 \\ \text{Tax rate} &= \frac{\text{Levy}}{\text{EAV}} \\ \text{Tax rate} &= \frac{\$1,000}{\$100,000} \\ \text{Tax rate} &= .01 \text{ or } 1 \text{ percent} \end{aligned}$$

Tax rates are normally expressed in dollars per \$100 of EAV. In the example above, the tax rate is \$1/\$100 of EAV, or \$1 in taxes for each \$100 of EAV.

In the second step of the extension process, the individual tax bills are extended in the collector's book by multiplying the EAV of each property by the sum of the tax rates for all districts in which the property is located. This sum is called the aggregate tax rate. A typical aggregate rate would include rates for the county, township, school district, and municipality, and could also include rates for a park district, fire protection district, library district, *etc.*, depending on where the property is located.

**Example
of tax
extension**

Assume the property's aggregate tax rate is \$7.00/\$100 and the property's EAV is \$20,000.

$$\begin{aligned} \text{Tax bill} &= \text{EAV} \times \text{aggregate tax rate} \\ \text{Tax bill} &= \$20,000 \times \$7/\$100 \text{ (or } .07) \\ \text{Tax bill} &= \$1,400 \end{aligned}$$

For this example, the collector's books would normally show an abbreviated legal description of the property,

the owner's name, the property index number (PIN), the EAV of \$20,000, the tax code that indicates what combination of taxing districts the property is located in, the aggregate tax rate of \$7.00/\$100, the tax bill in two equal installments of \$700 each, and spaces to enter the payments for the two installments.

The statutory date for the delivery of the collector's books from the county clerk to the county treasurer, who also serves as the *ex officio* county collector, is December 31 of the assessment year. As a practical matter, the collector's books are not normally given to the county treasurer until March or April of the year following the assessment year, since the levies are not due until the last Tuesday in December and some boards of review adjourn in December or later. This is 15 to 16 months into the property tax cycle.

Step 3: Collection and distribution

The county treasurer prepares a property tax bill for each property listed in the collector's books. The bill is mailed by May 1 of the year following the assessment year. For counties that use a two-installment method, the first installment is due by June 1, and the second installment is due by September 1. Once the treasurer begins receiving money from either installment, he or she distributes the monies to the appropriate taxing districts.

Soon after September 1, the county treasurer prepares a list of properties for which taxes have not been paid. This delinquent tax list is published in a newspaper, and notices are sent to the owners of the properties. These notices specify that the treasurer will apply to the circuit court for a judgment against the property for delinquent taxes. If taxes remain unpaid, the court will order a lien to be sold at the tax sale in the amount of the unpaid property taxes, penalty, and fees.

The tax sale usually occurs in late October, approximately 22 months into the property tax cycle, with the county clerk and county treasurer presiding. A lien on the property is sold through a bidding process in which

bidders, also called tax buyers, state the percent of interest for which they are willing to purchase the lien, starting at 18 percent per 6 months, and going lower until the lowest bidder purchases the lien. The tax buyer pays the amount of the lien and receives a certificate of purchase from the county clerk. The county treasurer then distributes revenues from the tax sale to the taxing districts.

Once the lien is sold, the property owner may redeem it by paying to the county clerk the amount of the lien, interest, and fees. The amount of the lien and interest is then paid by the county to the tax buyer, who must surrender the certificate of purchase. A tax buyer may eventually obtain a tax deed for the property if the tax lien is not redeemed.

The table on the following page shows the budget and levy cycle.

Budget and levy cycle

Taxing body

- 1 Prepares tentative budget.
- 2 Publishes notice of public hearing; puts tentative budget on display 30 days before public hearing.
- 3 Holds public hearing.
- 4 Passes budget with changes in form of ordinance.
- 5 If necessary, makes truth-in-taxation publication and holds hearing.
- 6 Gives certificate of levy to county clerk by the last Tuesday in December.

County clerk

- 1 Calculates tax rates and computes aggregate tax rate for each combination of taxing districts.
- 2 Extends taxes on total EAV in each taxing district and enters the amounts in the collector's books.
- 3 Prepares and delivers collector's books to county treasurer by December 31.

County treasurer (collector)

- 1 Prepares and mails tax bills by May 1.*
- 2 Collects first installment for real estate by June 1.*
- 3 Distributes tax money proportionately to taxing districts as money is collected.
- 4 Collects second installment for real estate by September 1.*
- 5 Prepares delinquent tax list and sends a notice of application for judgment on real estate.

Circuit court

Pronounces judgment for sale of a lien on real estate due to nonpayment of taxes.
Rules on tax objections.

County clerk and treasurer

Administers sale of lien on real estate due to nonpayment of taxes.

* For counties that use accelerated billing, the estimated bill is mailed by January 31; the first installment is due by March 1 (or the date provided in the county ordinance or resolution); the last installment is normally due by August 1. Counties can also adopt a four-installment payment schedule.

Property Assessment Appeals

Property taxes are levied, collected, and spent locally to finance a major part of the services that local units of government provide to their citizens. Since property is assessed at the local level, the department has no direct involvement in the assessment appeal process. The following is a general guide to the assessment appeal process in Illinois.

When going through the appeal process the property owner is appealing the assessed value of the property, not the tax bill. The amount of the tax bill is determined by the tax rates that are applied to the assessment by various taxing districts, such as schools, parks, libraries. If the assessment is to increase the county must publish the change in a local newspaper. Tax rates are not an issue in the appeal process, only the amount of the assessment. Once the tax bill is received, it is generally too late to make an appeal for that year's assessment.

Reasons for an appeal

A formal complaint may be filed based on any of the following claims:

- The assessor's market value is higher than actual market value. This claim can be supported if the property has recently been purchased on the open market or if a professional appraisal is supplied.
- The assessed value is at a higher percentage of market value for the property than the prevailing township or county median level, as shown in an assessment/sales ratio study.
- The assessment is based on inaccurate information, such as an incorrect measurement of a lot or building.
- The assessment is higher than those of similar neighboring properties.

Informal appeal

If a property owner has a complaint, the local assessing official should be the first person contacted. An assessor who still has assessment books for a given year can correct any assessment. Calling an erroneous assessment to the assessor's attention early in the year can

result in a correction without using the formal appeal process. Property owners should contact their township or county CCAO for information.

In Cook County, the township and the Cook County assessor's office will review assessments. Property owners should contact the county assessor's office for information regarding rules for filing assessed valuation complaints.

Formal appeal

If the informal appeal is unsuccessful, the property owner should proceed with a formal appeal to the reviewing board in the county in which the property is located.

Steps in the appeal of assessments

An appeal of assessment, other than land or farm buildings, has seven steps.

- 1 Determine the fair market value for the property.
- 2 Determine the prevailing assessment level in the jurisdiction.
- 3 Obtain the assessed valuation of the property.
- 4 Discuss the assessment with the assessor.
- 5 Determine the basis for the formal complaint.
- 6 File a written complaint with the board of review.
- 7 Present evidence of unfair assessment at the hearing to the board of review. If a property owner is dissatisfied with the board's decision, the owner can appeal the decision to the State Property Tax Appeal Board, in writing, or file a tax objection complaint in circuit court. In Cook County, taxpayers may first appeal their taxes to the county assessor.

The local assessing official should be contacted for information regarding the steps in appealing a farm land or farm building assessment.

Evidence needed

To support a claim of an unfair assessment, supporting evidence is required. Some evidence may be obtained from the township or county assessing official's office, from a professional appraiser, or through research. Pertinent evidence for nonfarm property may include some or all of the following:

- a copy of the property record card (PRC) and photograph for the property under appeal,
- a copy of Form PTAX-203, Real Estate Transfer Declaration, a deed, or a contract for purchase,
- an appraisal of the property,
- a list of recent sales of comparable properties, including photographs, PRCs, and evidence of the sale price,
- a photograph of elements detracting from the value of the property not shown on the PRC and an estimate, in terms of dollars, of their negative effect on the market value, and
- a copy of PRCs and photographs of similar or neighboring properties.

Summary

Property is divided into two classes - **real and personal**.

Ad valorem means according to value. Real property in Illinois is assessed according to value, therefore it is an *ad valorem* tax.

Market value is the most probable sale price of a property in terms of money in a competitive and open market, assuming that the buyer and seller are acting prudently and knowledgeably, allowing sufficient time for the sale, and assuming that the transaction is not affected by undue pressures.

The three approaches to value are **the sales comparison or market approach, the cost approach, and the income approach**.

Property is assessed according to its condition on **January 1** of each year.

The **CCAO** reviews assessments made by township assessors and makes changes when deemed necessary.

The **board of review** hears complaints and makes changes to assessments when deemed necessary. The board of review makes the final decision on property values at the county level.

The **county clerk** calculates tax rates and extends taxes on individual parcels of property.

The **county treasurer** prepares and mails tax bills. If taxes are not paid on time, the treasurer prepares a delinquent tax list and publishes a notice of application to the court for judgment against the property for delinquent taxes, interest, and penalties which is a lien on the affected property. The county clerk and the **treasurer** then administer a sale of the lien at a tax sale each year. Only the lien for unpaid taxes, interest, and penalties is sold, not the real estate.

Unit 1

Review questions

1 Define *ad valorem* tax.

2 _____ is the major source of tax revenue for local governments.

3 What are the two classifications of property?

1 _____

2 _____

4 The largest share of property tax goes to _____.

5 List the three approaches to value.

1 _____

2 _____

3 _____

6 What four steps are involved in the assessment of any property?

1 _____

2 _____

3 _____

4 _____

7 What two types of properties are assessed by the state?

1 _____

2 _____

8 What happens if an individual does not pay his taxes?

9 Who has the statutory authority to review assessments made by the township assessor and make changes when deemed necessary?

1

2

10 List, in order, the offices that actually handle the assessment books, from the time they are created until the taxes are extended.

1

2

3

4

5

6

11 Property is valued as to its condition on _____ ,
the assessment date.

12 The _____ makes the final decision on property
values at the county level.

Unit 2

Qualifications, Duties, and Responsibilities of Assessors and the Property Tax Code

This unit covers the statutes regarding the qualifications, duties, and responsibilities for the office of township and multi-township assessor.

The purpose of this unit is to provide a basic understanding of the responsibilities of the assessor, the Property Tax Code, the Certified Illinois Assessing Officer (CIAO) designation, and the qualifications needed to hold office.

Learning objectives

After completing the assigned readings, you should be able to

- understand the CIAO designation and its requirements,
- identify the qualification requirements for holding office,
- identify the basic duties and responsibilities of assessors, and
- have a general understanding of the Property Tax Code and its contents.



Terms and concepts

The Property Tax Code

Pre-election qualifications

Rule 110.162

Article 2 - Township Assessment Officials

Article 4 - Assessment Officials - Other Provisions

Article 9 - General Valuation Procedures

Article 25 - Penalties

The Property Tax Code

For more than 50 years, property tax was governed by the Revenue Act of 1939. Numerous legislative changes occurred over these years and, as a result, the Revenue Act became confusing and difficult to interpret. In February of 1992, a committee, comprised of individuals involved in various aspects of property tax throughout the state, was formed to reorganize and clarify the act.

The committee accomplished five major objectives.

- 1 The statutes were realigned for a more readable format.
- 2 The language was modernized.
- 3 Obsolete language and references were deleted.
- 4 The act was clarified using common, easily understood language,
- 5 The act was reorganized so like subjects appear together.

The group laid the foundation for future work. They did not, however, make any substantive changes.

The committee completed its work in December of 1992. Public hearings were held and the Property Tax Code, introduced as SB 588, passed both houses and was signed into law by the governor in 1994.

The statutory authority for township and multi-township assessors is the Property Tax Code. The code is Act 200 in Chapter 35 of the Illinois Compiled Statutes. Assessors should become familiar with the provisions of the code.

Qualification requirements

All candidates for township or multi-township assessor must file a certificate of qualifications, along with their nomination papers, as stated in Section 2-45 of the Property Tax Code.

Candidates who

- file nomination papers;
- intend to participate in any caucus, primary or general election;
- are seeking to be appointed to fill vacancies in the office of township or multi-township assessor; or
- intend to enter into a contract to complete the assessments in any township or multi-township

must meet the following minimum education requirements, generally based upon the EAV of the assessment jurisdiction.

Introductory assessment jurisdictions

In jurisdictions with \$10 million or less in non-farm/non-mineral EAV and less than \$1 million in commercial and industrial EAV, the candidate or appointee must

- complete and pass the Township Assessor-Introductory Course offered by the department, or
- have passed the Basic Course offered by the Illinois Property Assessment Institute prior to January 1, 1997, or
- possess a designation approved for jurisdictions with higher EAVs.

Intermediate assessment jurisdictions

In jurisdictions with more than \$10 million but less than \$25 million in non-farm/non-mineral EAV and less than \$1 million in commercial and industrial EAV, the qualifications are based on whether the candidate was previously elected in any such jurisdiction.

If the candidate or appointee **previously was not elected** to office in an assessment jurisdiction that had more than \$10 million but less than \$25 million in non-farm/non-mineral EAV, and less than \$1 million in commercial and industrial EAV, the candidate must meet one of the introductory assessment jurisdiction requirements.

If the candidate or appointee **previously was elected** to office in an assessment jurisdiction that had more than \$10 million but less than \$25 million in non-farm/non-mineral EAV, and less than \$1 million in commercial and industrial EAV, the candidate must meet one of the larger assessment jurisdiction requirements.

Larger assessment jurisdictions

In jurisdictions with more than \$25 million in non-farm/non-mineral EAV or more than \$1 million in commercial and industrial EAV, the candidate or appointee must possess one of the following designations:

- A Certified Illinois Assessment Officer (CIAO) or the Certified Illinois Assessment Officer-Associate (CIAO-A) from the Illinois Property Assessment Institute.
- A Certified Assessment Evaluator (CAE) or Residential Evaluation Specialist (RES) designation from the International Association of Assessing Officers (IAAO).
- A Residential Member (RM), Member Appraisal Institute (MAI), Senior Real Estate Analyst (SREA), Senior Real Property Appraiser (SRPA), or Senior Residential Appraiser (SRA) designation from the Appraisal Institute.
- A Member (IFA), Senior Member (IFAS), or Appraiser-Counselor (IFAC) from the National Association of Independent Fee Appraisers.
- A Member (ASA) designation from the American Society of Appraisers.

Candidates who plan to use either the “Township Assessor — Introductory Course” or the Certified Illinois Assessing Officer designation need to contact the department at 217 785-7311 to receive a “Certificate of Qualification.”

Candidates who plan to use one of the other approved designations listed in Section 2-45 of the code need to request a letter of qualification from that particular organization. The letter of qualification from the other organization must specify the type of designation, membership status, and the time period for which the candidate is qualified.

Revision of assessor qualifications

A jurisdiction may be in a higher EAV category only because of a small number of high-value commercial or industrial properties that are not assessed by the township or multi-township assessor. In this case, the township and multi-township board of trustees may petition the department to review the qualifications of a particular jurisdiction and the department **may** change the qualification to that required for a lower EAV jurisdiction. This provision is covered by Section 2-52 of the code.

Contents of the petition

The department does not provide forms for the petitioning process. Petitions submitted to the department must include the following information:

- 1 The name and county of the township or multi-township assessment district.
- 2 The date the township or multi-township board of trustees approved the petition to request the department to revise the qualifications.
- 3 The non-farm EAV and the commercial and industrial EAV that was used as the basis for certifying the pre-election and pre-appointment requirements.
- 4 A statement that the township or multi-township board of trustees requests the qualifications for township or multi-township assessor be revised.
- 5 A **detailed** statement that supports the request for a revision of assessor qualifications.
- 6 If the petition states that the reason for the request is the fact that either another governmental or private party values certain commercial or industrial property within the assessment district, the petition must include a statement of the qualifications of the party doing the actual assessing and the current EAV of that property. A copy of the written agreement between the assessment district and the assessing party must also be provided. This party should identify the property being assessed and indicate whether he or she will continue to value this property for the duration of the assessor's term.

More specific information including additional requirements and documentation regarding the petition process is found in (86 Adm. Rules 110-162(d)) of the department's rules.

Detailed supporting statements

The detailed statement in support of the request for revision of assessor qualifications must include information regarding the quantity and complexity of assessments within the township or multi-township assessment district. The statement may include, but is not limited to

- evidence that assessed values are different than the values used as the basis for certifying the pre-election and pre-appointment requirements for township or multi-township assessor;
- descriptions of the number, characteristics, and valuations of classes, groups, or individual properties in the assessment district;
- descriptions of the activities of the assessor in the assessment process in the assessment district;
- copies of written agreements for another governmental or private party to value commercial or industrial properties within the assessment district;
- any other information the petitioning board considers relevant to a determination that the quantity and complexity of assessments within the assessment district supports reducing the standards for qualification for the office of township or multi-township assessor.

Additional information

The department will consider evidence concerning the quantity and complexity of assessments within the township or multi-township assessment district when making a determination on a petition for revision of assessor qualifications. Evidence considered includes evidence that the values for the assessment district are different from those used by the department, and evidence that an assessment district would have been in a category with lower assessor qualification requirements if it were not for the EAV of three or fewer properties valued by another governmental or private party.

The department may request additional information from the petitioning board before making a determination on a petition. If a revision is allowed in assessor qualification, the department will notify the township or multi-township clerk and the county clerk of that county within 30 days of receipt of the petition or receipt of any requested additional information. Any revision allowed by the department remains in effect until the next certification under Section 2-50 of the code.

It should be noted that the department will not determine a petition in favor of the petitioning board strictly on the basis that all, or a significant portion, of the township or multi-township assessor's duties have been turned over to another party.

CIAO designation

Individuals must successfully complete three core course requirements and two electives to obtain a CIAO designation.



The first course, **Basic Assessment Practices**, covers

- assessing officer qualifications,
- introductory material on the property tax code and the property tax cycle, and
- the duties and responsibilities of assessing officials, along with penalties for failing to perform these functions.

The course provides a general explanation of the various designations and where to find assistance. Information on managing the assessment office, including discussion of ethics, public relations, budgeting, and record management is also covered.



The second course, **Property Valuation**, focuses on

- the assessment process of discovering, listing, and assessing property,
- mass appraisal tools and land valuation, and
- the valuation process for residential, commercial, industrial, and farm property.

The course also includes an overview of computer-assisted mass appraisal and neighborhood analysis.



The third course, **Introduction to Mass Appraisal Techniques**, covers

- the technical aspects of the assessment process,
- instruction on sales ratio studies, equalization, exemptions, and preferred assessments, and
- leaseholds, instant assessments, disaster assessments, and mobile homes.

To complete the requirements for the designation, individuals also must select two electives from the following six courses:

1-A Introduction to Residential Assessment Practices
1-B Introduction to Commercial Assessment Practices
1-E Introduction to Sales Ratio Studies;
1-F Introduction to Farmland Assessments;
1-M Introduction to Mapping for Assessors; and
Office Administration.

Continuing education

Individuals who received the CIAO designation in the year preceding their election or appointment meet the education requirements for qualification.

Individuals who received their CIAO designation prior to the year preceding their election or appointment must also satisfy continuing education requirements. (See Section 2-45.)

The law requires that individuals who obtained their CIAO prior to the year preceding their participation for election, or prior to their appointment, take 30 hours of additional course work approved by the department. This can be either an approved 30-hour exam course or separate approved courses totaling 30 hours. At least 15 hours of these credits must be successfully completed exam course credits. The 30 hours must be taken within a calendar year.

The 30 hours of additional course work must be taken prior to filing nomination papers, participating as a candidate in a caucus, primary, or general election, being appointed to fill a vacancy in office, or contracting with an assessment district.

If an individual successfully completes a minimum of 300 hours of maintenance courses approved by the department, with at least 150 hours of exam credit, the individual is only required to take 15 class hours of additional training approved by the department within the 4 years preceding the election or appointment.

CIAO stipend

The annual continuing education requirement for the \$500 CIAO stipend consists of completion of 30 hours of continuing education coursework approved by the department. At least 15 of the 30 hours must be exam credit. The 30 hours must be taken within a calendar year. (See Section 4-10.)

Six categories of classes

The education program provides assessment officials with the framework and direction necessary to personalize their continuing education program. Within this program, courses are analyzed for content and assigned to six general categories. There are then three levels within each of these six categories.

Administration: Administration of the assessment office and computer usage
Commercial: Assessment of commercial and industrial property

Land:	Assessment of land; assessment of farmland; mapping; and GIS
Theory:	Assessment and appraisal theory; legal issues; and legislative issues
Residential:	Assessment of residential property
Statistics:	Use of mathematical and statistical procedures in the assessment process.

Three levels within the six categories of classes

Level 1:	Introductory level courses, that provide a basic understanding of the subject matter.
Level 2:	Intermediate level courses, that provide more in-depth material, enabling students to build on the skills acquired at the introductory level.
Level 3:	Advanced level courses, that build on information acquired in Level 2 and provide the theory, information, and skills needed to perform and understand complex principles of the assessment process. These courses are application-oriented.

Number of hours per level and category

Level 1:	180 hours maximum, up to 45 hours per category.
Level 2:	300 hours maximum, up to 120 hours per category .
Level 3:	No restrictions.

Once an assessing official has achieved the designated number of either examination or seminar hours for a given category or level, the official advances to a new category or level, in order to earn continuing education credit.

The annual continuing education requirement for the \$500 CIAO stipend requires the official to complete 30 hours of continuing education coursework, approved

by the department, with at least 15 of those 30 hours being examination credit. Credit for continuing education is subject to the Education 2000 criteria.

The department has the responsibility of course approval for CIAO continuing education credit. The course must be of adequate substance to warrant approval for continuing education credit. To qualify for continuing education credit, as required by Section 4-10 of the code, a course must deal with either

- cost, market, and income approaches to value,
- mass appraisal techniques, or
- property tax administration.

To request course approval, you must submit a copy of the course description or outline, time slots for each topic, dates for the course, and the examination to the department. The examination must be stringent enough to warrant examination credit. The department has the right to reevaluate approved courses and change the amount or type of credit.

Failure to meet the requirements during any year will affect payment of the stipend for that year only.

Additional compensation

Individuals who meet the requirement for the CIAO stipend qualify for additional compensation if they hold either a current Certified Assessment Evaluator (CAE) or a Residential Evaluation Specialist (RES) designation from the International Association of Assessing Officers (IAAO).

Exercise 2-1

Using the Property Tax Code

Use the Property Tax Code to answer the following questions and cite the correct section.

- 1 What is the education requirement for the assessor in a township or multi-township with a non-farm, non-mineral equalized assessed valuation of less than \$10 million and less than \$1 million commercial and industrial valuation?

_____ Section _____

- 2 Are assessing officials required to take an oath of office?

_____ Section _____

- 3 Must a supervisor of assessments hold an annual meeting for his or her township and multi-township assessors?

_____ Section _____

- 4 Are individuals permitted to obtain copies of property record cards?

_____ Section _____

- 5 Are township assessors required to provide the supervisor of assessments with a copy of all new property record cards as they are added to the tax rolls?

_____ Section _____

- 6 Must the supervisor of assessments provide “guidelines” for the assessment of property by township assessors?

_____ Section _____

- 7 Is there a provision in the statutes for the revisions of assessment in counties of less than 3 million?

_____ Section _____

8 What is the date specified by statute for the return of the assessment books by the township assessor to the supervisor of assessments?

_____ Section _____

9 May township assessors appoint deputies to assist them with their duties?

_____ Section _____

10 Is there a provision in the statutes for setting the salary of an assessor?

_____ Section _____

11 Can township assessors be reimbursed for their education expenses?

_____ Section _____

12 Are there any penalties for assessors who knowingly fail to perform their duties?

_____ Section _____

13 Who is responsible for prosecuting violators of the Property Tax Code?

_____ Section _____

14 How are vacancies in the office of township assessor filled?

_____ Section _____

15 What is the statutory level of assessment?

_____ Section _____

16 Can candidates “get qualified” after they are elected or appointed, as long as they are qualified when they take their oath?

_____ Section _____

The following pages contain excerpts from Sections 2, 4, 9, and 25 of the Property Tax Code, as amended through Public Act 94-1087. These sections are to be used for course work only and should not be used as a replacement for the Property Tax Code.

Table of Contents

TITLE 2. ASSESSMENT OFFICIALS

Article 2. Township Assessment Officials

Sec. 2-5.	Multi-township assessors.	2-18
Sec. 2-10.	Mandatory establishment of multi-township assessment districts.	2-18
Sec. 2-15.	Voluntary establishment of multi-township assessment districts.	2-20
Sec. 2-20.	Township and Multi-Township Boards of Trustees; Elected Assessors.	2-20
Sec. 2-25.	Transition to multi-township organization.	2-21
Sec. 2-30.	Budget Making.	2-22
Sec. 2-35.	Disconnection petition.	2-22
Sec. 2-40.	Notice of disconnection.	2-23
Sec. 2-45.	Selection and eligibility of township and multi-township assessor.	2-23
Sec. 2-50.	Certification by Department.	2-26
Sec. 2-52.	Revision of assessor qualifications by Department.	2-26
Sec. 2-55.	Role as ex-officio deputy assessors.	2-26
Sec. 2-60.	Vacancies.	2-27
Sec. 2-65.	Deputies and employees.	2-28
Sec. 2-70.	Salary.	2-28
Sec. 2-75.	Affidavit for time employed.	2-28
Sec. 2-80.	Expenses and office needs.	2-29

Article 4. Assessment Officials — Other Provisions

Sec. 4-5.	State compensation not to affect county compensation.	2-29
Sec. 4-10.	Compensation for Certified Illinois Assessing Officers.	2-29
Sec. 4-15.	Compensation of local assessment officers holding other designations.	2-30
Sec. 4-20.	Additional compensation based on performance.	2-31
Sec. 4-25.	Bond of assessors.	2-32
Sec. 4-30.	Oath of assessors.	2-32

TITLE 3. VALUATION AND ASSESSMENT

Article 9. General Valuation Procedures

Division 1. Office operations

Sec. 9-5.	Rules.	2-33
Sec. 9-10.	Office hours.	2-33
Sec. 9-15.	Annual meeting of supervisor of assessments.	2-33
Sec. 9-20.	Property record cards.	2-34
Sec. 9-25.	Township property record cards.	2-34
Sec. 9-30.	Property records systems - Townships and multi-townships.	2-34
Sec. 9-35.	County tax maps - Supervisor of assessments.	2-35
Sec. 9-40.	County tax maps; County assessor.	2-35
Sec. 9-45.	Property index number system.	2-36

Sec. 9-50.	Maps and plats.	2-38
Sec. 9-55.	Survey by owner.	2-38
Sec. 9-60.	County clerk survey.	2-38
Sec. 9-65.	Reassessment after platting.	2-39

Division 2. Assessment authority

Sec. 9-70.	Assessment authority.	2-39
Sec. 9-75.	Revisions of assessments; Counties of less than 3,000,000.	2-39
Sec. 9-80.	Authority to revise assessments; Counties of less than 3,000,000.	2-39
Sec. 9-85.	Revision of assessments by county assessor and board of review; Counties of 3,000,000 or more.	2-40

Division 3. Assessment books

Sec. 9-90.	Procuring assessment books.	2-41
Sec. 9-95.	Listing of property.	2-41
Sec. 9-100.	Assessment list; Delivery of books.	2-41
Sec. 9-105.	Makeup of assessment books by townships.	2-42
Sec. 9-110.	Railroad assessment book.	2-42
Sec. 9-115.	Parcels in more than one taxing district.	2-43
Sec. 9-120.	Combined listings.	2-43
Sec. 9-125.	Verification of assessment lists.	2-43
Sec. 9-130.	Delivery of assessment books.	2-43
Sec. 9-135.	Correction of assessment lists.	2-43
Sec. 9-140.	Loss or destruction of assessment books.	2-44

Division 4. Valuation procedures

Sec. 9-145.	Statutory level of assessment.	2-44
Sec. 9-150.	Classification of property.	2-45
Sec. 9-155.	Valuation in general assessment years.	2-45
Sec. 9-160.	Valuation in years other than general assessment years.	2-46
Sec. 9-165.	Definitions.	2-47
Sec. 9-170.	(Repealed)	2-47
Sec. 9-175.	Owner on assessment date.	2-47
Sec. 9-180.	Pro-rata valuations; improvements or removal of improvements.	2-47
Sec. 9-185.	Change in use or ownership.	2-48
Sec. 9-190.	Damaged or destroyed property.	2-49
Sec. 9-195.	Leasing of exempt property.	2-50
Sec. 9-200.	Previously exempt property.	2-50
Sec. 9-205.	Equalization.	2-50
Sec. 9-210.	Equalization by chief county assessment officer; counties of less than 3,000,000.	2-51
Sec. 9-215.	General assessment years; counties of less than 3,000,000.	2-51
Sec. 9-220.	Division into assessment districts; assessment years; counties of 3,000,000 or more.	2-52
Sec. 9-225.	Division of county into four assessment districts.	2-52
Sec. 9-230.	Return of township or multi-township assessment books.	2-53
Sec. 9-235.	Failure to complete assessments.	2-54
Sec. 9-240.	Assessment book totals.	2-54
Sec. 9-245.	Return of books to board of review; counties of less than 3,000,000.	2-55

Sec. 9-250.	Abstract of assessment by county clerk.	2-55
Sec. 9-255.	Statement of incomplete assessments.	2-55

Division 5. Omitted property

Sec. 9-260.	Assessment of omitted property; counties of 3,000,000 or more.	2-56
Sec. 9-265.	Omitted property; interest; change in exempt use or ownership.	2-57
Sec. 9-270.	Omitted property; limitations on assessment.	2-57

Article 25. Penalties

Sec. 25-5.	Delivery and receipt of collector's book before bond approved.	2-58
Sec. 25-10.	Failure of collector to obtain timely judgment or present list of errors.	2-58
Sec. 25-15.	Knowing failure of local assessment officer to perform duties.	2-59
Sec. 25-20.	Knowing failure of public officer to perform duties.	2-59
Sec. 25-25.	Failure of officer to perform duties if no other penalty provided.	2-59
Sec. 25-30.	Failure of collector to attend tax sale.	2-60
Sec. 25-35.	Failure of county clerk to attend tax sale or keep required records.	2-60
Sec. 25-40.	Fraudulent return or schedule.	2-60
Sec. 25-45.	Duty of state's attorney to prosecute.	2-60

TITLE 2. ASSESSMENT OFFICIALS

Article 2. Township Assessment Officials

Sec. 2-5. Multi-township assessors.

Townships with less than 1,000 inhabitants shall not elect assessors for each township but shall elect multi-township assessors.

(1) If 2 or more townships with less than 1,000 inhabitants are contiguous, one multi-township assessor shall be elected to assess the property in as many of the townships as are contiguous and whose combined population is 1,000 or more inhabitants.

(2) If any township of less than 1,000 inhabitants is not contiguous to another township of less than 1,000 inhabitants, one multi-township assessor shall be elected to assess the property of that township and any other township to which it is contiguous.

(Source: P.A. 87-818; 88-455.)

Sec. 2-10. Mandatory establishment of multi-township assessment districts.

Before August 1, 2002 and every 10 years thereafter, the supervisor of assessments shall prepare maps, by county, of the townships, indicating the number of inhabitants and the equalized assessed valuation of each township for the preceding year, within the counties under township organization, and shall distribute a copy of that map to the county board and to each township supervisor, board of trustees, sitting township or multi-township assessor, and to the Department. The map shall contain suggested multi-township assessment districts for purposes of assessment. Upon receipt of the maps, the boards of trustees shall determine separately, by majority vote, if the suggested multi-township districts are acceptable.

The township boards of trustees may meet as a body to discuss the suggested districts of which they would be a part. Upon request of the township supervisor of any township, the township supervisor of the township containing the most population shall call the meeting, designating the time and place, and shall act as temporary chairperson of the meeting until a permanent chairperson is chosen from among the township officials included in the call to the meeting. The township assessors and supervisor of assessments may participate in the meeting. Notice of the meeting shall be given in

the same manner as notice is required for township meetings in the Township Code. The meeting shall be open to the public and may be recessed from time to time.

If a multi-township assessment district is not acceptable to any board of trustees, they shall so determine and further determine an alternative multi-township assessment district. The suggested or alternative multi-township assessment district shall contain at least 2 townships and 1,000 or more inhabitants, shall contain no less than the total area of any one township, shall be contiguous to at least one other township in the multi-township assessment district, and shall be located within one county. For purposes of this Section only, townships are contiguous if they share a common boundary line or meet at any point. This amendatory Act of 1996 is not a new enactment, but is declarative of existing law.

Before September 15, 2002 and every 10 years thereafter, the respective boards of town trustees shall notify the supervisor of assessments and the Department whether they have accepted the suggested multi-township assessment district or whether they have adopted an alternative district, and, in the latter case, they shall include in the notification a description or map, by township, of the alternative district. Before October 1, 2002 and every 10 years thereafter, the supervisor of assessments shall determine whether any suggested or alternative multi-township assessment district meets the conditions of this Section and Section 2-5. If any township board of trustees fails to so notify the supervisor of assessments and the Department as provided in this Section, the township shall be part of the original suggested multi-township assessment district. In any dispute between 2 or more townships as to inclusion or exclusion of a township in any one multi-township assessment district, the county board shall hold a public hearing in the county seat and, as soon as practicable thereafter, make a final determination as to the composition of the district. It shall notify the Department of the final determination before November 15, 2002 and every 10 years thereafter. The Department shall promulgate the multi-township assessment districts, file the same with the Secretary of State as provided in the Illinois Administrative Procedure Act and so notify the township supervisors, boards of trustees and county clerks of the townships and counties subject to this Section and Section 2-5. If the Department's promulgation removes a township from a prior multi-township assessment district, that township shall, within 30 days after the effective date of the removal, receive a distribution of a portion of the assets of the prior multi-township assessment district according to the ratio of the total equalized assessed valuation of all

the taxable property in the township to the total equalized assessed valuation of all the taxable property in the prior multi-township assessment district. If a township is removed from one multi-township assessment district and made a part of another multi-township assessment district, the district from which the township is removed shall, within 30 days after the effective date of the removal, cause the township's distribution under this paragraph to be paid directly to the district of which the township is made a part. A township receiving such a distribution (or a multi-township assessment district receiving such a distribution on behalf of a township that is made a part of that district) shall use the proceeds from the distribution only in connection with assessing real estate in the township for tax purposes. (Source: P.A. 88-455; incorporates 88-221; 88-670, eff. 12-2-94; 89-502, eff. 6-28-96; 89-695, eff. 12-31-96.)

Sec. 2-15. Voluntary establishment of multi-township assessment districts.

Any 2 or more contiguous townships in any one county, other than townships provided for in Sections 2-5 and 2-10, may by majority vote of each board of trustees of the townships, form a multi-township assessment district comprising those townships. This determination shall be made no later than October 1 of the year preceding the year in which township officials are elected. If one or more of those township assessor's offices is vacant, a determination to form a multi-township assessment district may still be made at the time of that vacancy. The assessor or assessors remaining in office in one or more of the townships comprising the multi-township assessment district shall assume the duties of multi-township assessor until a successor is elected or appointed and qualified. If there is no township assessor remaining in office at the time, the board of trustees of the multi-township assessment district, as defined in Section 2-20, shall appoint a multi-township assessor for the unexpired terms of the former elected township assessors as provided in this Code.

The township boards of trustees shall notify the supervisor of assessments and the Department prior to December 1 of the year in which they have taken any action prescribed in this Section. (Source: P.A. 88-455; 88-670, eff. 12-2-94.)

Sec. 2-20. Township and Multi-Township Boards of Trustees; Elected Assessors.

The township supervisors and clerks of townships comprising a multi-township assessment district, and the township board of trustees in townships that are not a part of a multi-township assess-

ment jurisdiction, shall, ex officio, constitute a multi-township or township board of trustees for their respective assessment jurisdictions.

Each multi-township board of trustees shall organize and select one of its number as chairman, another as clerk and another as treasurer. These officers shall serve a term of 2 years or until their successors are elected, except no person shall be a member of a multi-township board of trustees after the expiration of his or her term as township supervisor or township clerk.

The powers and duties of a multi-township board of trustees or township board of trustees concerning property tax assessment administration shall be limited to the following: (1) levying taxes necessary to provide the funds required by the budget adopted for the township or multi-township assessor and certifying the levy to the county clerk, (2) determining and approving the budget of the assessor, (3) determining a salary for the assessor, and (4) setting the compensation of any assessor or temporarily appointed because the assessor is physically incapacitated, according to Section 60-5 of the Township Code. The levy shall not be included within any statutory limitation of rate or amount for other township purposes, but shall be in addition to that rate or amount. The board shall have no power to approve or disapprove personnel of the multi-township or township assessor. The treasurer of the multi-township board of trustees shall have the duties and responsibilities of the township supervisor in relation to the township assessor in the maintenance and disbursement of funds of the multi-township assessor.

The changes made in this Section by Public Act 82-554 do not apply to any township in a county with more than 3,000,000 inhabitants.(Source: P.A. 88-455; 88-670, eff. 12-2-94.)

Sec. 2-25. Transition to multi-township organization.

No later than December 1 preceding the date the multi-township assessor takes office, the assessors of townships included in the multi-township district and the supervisor of assessments shall deliver to the multi-township assessor all books, records, supplies, and other property relating to their assessing office, taking the multi-township assessor's receipt therefor. The township supervisors of the townships comprising the multi-township district shall transfer to the multi-township treasurer all funds relating to or budgeted for purposes of township assessments. Any accounts or tax moneys for township assessment purposes thereafter shall be

paid to the multi-township treasurer of the multi-township district, with copies of the county treasurer's disbursement statements going directly to the multi-township assessor. (Source: P.A. 81-838; 88-455.)

Sec. 2-30. Budget Making.

At least 60 days prior to the beginning of each fiscal year, the assessor for each multi-township assessment district or township shall prepare and present on forms provided or approved by the Department an office budget for the ensuing fiscal year. The multi-township or township board of trustees shall adopt a budget and appropriation ordinance in accordance with the Illinois Municipal Budget Law.

The multi-township board must, at least 30 days before the public hearing required by Section 3 of the Illinois Municipal Budget Law, prepare or cause to be prepared a tentative budget and appropriation ordinance and file the ordinance with the township clerks of the townships comprising the multi-township assessment district. The township clerks must make the tentative budget and appropriation ordinance available for public inspection for at least 30 days before final action on the ordinance. The required public hearing must be held on or before the last day of the first quarter of the fiscal year before the board. Notice of the hearing must be given by publication in a newspaper published in the multi-township assessment district at least 30 days before the time of the hearing. If there is no newspaper published in the multi-township assessment district, notice of the public hearing may be given by posting notices in 5 of the most public places in each township comprising the multi-township assessment district. It is the duty of the township clerks to arrange for the public hearing. The board at the public hearing may adopt all or part of the tentative budget and appropriation ordinance, as the board deems necessary.

The multi-township or township board of trustees shall determine the amount required and permitted by law to finance the operations of the office of the multi-township or township assessor. The board of trustees shall certify that amount in a levy to the county clerk in the manner provided in Section 2-20. The county clerk shall extend the tax levies, as provided in this Code, against all taxable property within the jurisdiction. (Source: P.A. 92-684, eff. 7-16-02.)

Sec. 2-35. Disconnection petition.

- (a) A township with 1,000 or more inhabitants according to the last preceding special Federal Census may be disconnected from a multi-township district under this Section if: (1) the township had

less than 1,000 inhabitants preceding the date on which the township was included within a multi-township district under Section 2-5 and 2-10; or (2) the township was included within a multi-township district created under Section 2-15.

(b) If a petition for the disconnection from a multi-township assessment district of a township described in subsection (a) is signed by 10% of the registered voters of the township and is filed with the clerk of the township no later than August 1 of the year preceding the year in which the multi-township assessor is to be elected, the clerk shall promptly forward the petition to the township board of trustees. The township board of trustees shall adopt or reject the petition within 60 days after receiving it. If the board adopts the petition, the township shall be disconnected from the multi-township district, effective upon the expiration of the term of office of the incumbent multi-township assessor.

(c) After the disconnection of a township under this Section, the multi-township district shall continue to exist. If only one township remains in the district after the disconnection or if the combined population of the remaining townships is less than 1,000 inhabitants, the disconnection shall not be allowed.

(Source: P.A. 84-1051; 88-455.)

Sec. 2-40. Notice of disconnection.

Within 60 days of an adoption of a disconnection petition under Section 2-35, the clerk or clerks of the disconnected township or townships shall notify the Department of that fact. When so notified, the Department shall amend the list filed with the Secretary of State under Section 2-10. (Source: P.A. 85-340; 88-455.)

Sec. 2-45. Selection and eligibility of township and multi-township assessors.

(a) In all counties under township organization, township or multi-township assessors shall be qualified as required by subsections (b) through (d) of this Section and shall be elected as provided in this Code. Township or multi-township assessors shall enter upon their duties on January 1 following their election, and perform the duties of the office for 4 years.

(b) Beginning December 1, 1996, in any township or multi-township assessment district not subject to the requirements of subsections (c) or (d) of this Section, no person is eligible to file nomination papers or participate as a candidate in any caucus or primary or general election for, or be appointed to fill vacancies in, the office of township or multi-township assessor, unless he or she (i) has successfully completed an introductory course in assessment

practices that is approved by the Department; or (ii) possesses at least one of the qualifications listed in paragraphs (1) through (6) of subsection (c) of this Section. The candidate cannot file nominating papers or participate as a candidate unless a copy of the certificate of his or her qualifications is filed with the township clerk, board of election commissioners, or other appropriate authority as required by the Election Code. The candidate cannot be appointed to fill a vacancy until he or she has filed a copy of the certificate of his or her qualifications with the appointing authority.

(c) Beginning December 1, 1996, in a township or multi-township assessment district with \$25,000,000 or more of non-farm equalized assessed value or \$1,000,000 or more in commercial and industrial equalized assessed value, no person is eligible to file nomination papers or participate as a candidate in any caucus or primary or general election for, or be appointed to fill vacancies in, the office of township or multi-township assessor, unless he or she possesses at least one of the qualifications listed in paragraphs (1) through (6) of this subsection (c).

(1) a Certified Illinois Assessing Officer certificate from the Illinois Property Assessment Institute with current additional 30 class hours as required for additional compensation under Section 4-10;

(2) (A) A Certified Illinois Assessing Officer certificate from the Illinois Property Assessment Institute with a minimum of 300 additional hours of successfully completed courses approved by the Department, if at least 150 of the course hours required a written examination; and

(B) within the 4 years preceding the election, successful completion of at least 15 class hours of additional training in courses that must be approved by the Department, including but not limited to, assessment, appraisal, or computer courses, and that may be offered by accredited universities, colleges, or community colleges;

(3) a Certified Assessment Evaluator designation from the International Association of Assessing Officers;

(4) certification as a Member of the Appraisal Institute, Senior Real Estate Analyst, or Senior Real Property Appraiser from the Appraisal Institute or its predecessor organization;

(5) a professional designation by any other appraisal or assessing association approved by the Department; or

(6) if the person has served as a township or multi-township assessor for 12 years or more, a Certified Illinois Assessing Official certificate from the Illinois Property Assessment Institute with a minimum of 360 additional hours of successfully completed courses approved by the Department, if at least 180 of the course hours required a written examination.

The candidate cannot file nominating papers or participate as a candidate unless a copy of the certificate of his or her qualifications is filed with the township clerk, board of election commissioners, or other appropriate authority as required by the Election Code. The candidate cannot be appointed to fill a vacancy until he or she has filed a copy of the certificate of his or her qualifications with the appointing authority.

(d) Beginning December 1, 2000, in a township or multi-township assessment district with more than \$10,000,000 and less than \$25,000,000 of non-farm equalized assessed value and less than \$1,000,000 in commercial and industrial equalized assessed value, no person who has previously been elected as township or multi-township assessor in any such township or multi-township assessment district is eligible to file nomination papers or participate as a candidate in any caucus or primary or general election for the office of township or multi-township assessor, unless he or she possesses at least one of the qualifications listed in paragraphs (1) through (6) of subsection (c) of this Section. The candidate cannot file nominating papers or participate as a candidate unless a copy of the certificate of his or her qualifications is filed with the township clerk, board of election commissioners, or other appropriate authority as required by the Election Code.

(e) If any person files nominating papers for candidacy for the office of township or multi-township assessor without also filing a copy of the certificate as required by this Section, the clerk of the township, the board of election commissioners, or other appropriate authority as required by the Election Code shall refuse to certify the name of the person as a candidate to the proper election officials.

If no candidate for election meets the above qualifications there shall be no election and the town board of trustees or multi-township board of trustees shall appoint or contract with a person under Section 2-60.

As used in this Section only, “non-farm equalized assessed value” means the total equalized assessed value in the township or multi-township assessment district as reported to the Department under Section 18-225 after removal of homestead exemptions, and after

removal of the equalized assessed value reported as farm or minerals to the Department under Section 18-225.

For purposes of this Section only, “file nomination papers” also includes having nomination papers filed on behalf of the candidate by another person.

(Source: P.A. 93-188, eff. 7-11-03.)

Sec. 2-50. Certification by Department.

The Department shall, within 15 days after the effective date of this amendatory Act of 1995 and, thereafter, by February 1 of each year before the year of election of township or multi-township assessors, certify to each township or multi-township clerk and each county clerk a list showing all township and multi-township assessment districts with the pre-election requirements for township or multi-township assessor under Section 2-45 for each township and each multi-township assessment district. If a new multi-township assessment district is established under Section 2-15 or a township is disconnected from a multi-township assessment district under Section 2-35, the Department shall, within 30 days after the required statutory notice, certify to the multi-township clerk and county clerk whether the assessor for the new multi-township assessment district is subject to the requirements of subsections (b), (c), or (d) of Section 2-45 of this Code. (Source: P.A. 88-455; 89-441, eff. 6-1-96.)

Sec. 2-52. Revision of assessor qualifications by Department.

The Department may revise the assessor qualifications for township and multi-township assessment districts from those qualifications specified in subsections (c) or (d) of Section 2-45 to those qualifications specified in subsection (b) of Section 2-45 if the township or multi-township board of trustees petition the Department to do so. In determining petitions from a township or multi-township board of trustees requesting a change in assessor qualifications, the Department shall consider the quantity and complexity of assessments in the township or multi-township. The Department shall promulgate reasonable rules relating to the administration of this Section. (Source: P.A. 89-441, eff. 6-1-96.)

Sec. 2-55. Role as ex-officio deputy assessors.

In all townships in counties of 3,000,000 or more, in which township assessors are elected, the township assessors shall be ex-officio deputy assessors to make the assessments in the townships wherein they are elected but those ex-officio deputy assessors shall be under the direction and control of the county assessor in the same manner as other deputy assessors, subject to the rules and regulations pre-

scribed by the county assessor and the board of appeals. The compensation and expenses of the township assessors shall be determined and paid as provided in Sections 2-70, 2-75, 2-80, 4-10, 4-15 and 4-20. If in any township the ex-officio deputy assessor is not able, within the time allowed by law or set by rules and regulations prescribed by the county assessor and the board of appeals, to make the assessment in the township, any additional deputy assessor or deputy assessors required to make the assessment shall be residents and legal voters of the township and may be appointed by the county assessor. For failure to complete the assessment and return the assessment books within the time prescribed by law or set by the rules and regulations of the county assessor and board of appeals, any township assessor may be removed from office by the order of the county assessor. All clerks and deputies shall take and subscribe an oath of office to honestly and faithfully perform all the duties of their respective offices under the direction of the county assessor. The county assessor, the clerks and deputy assessors, may administer oaths authorized by law to be administered by assessors. The number and compensation of the clerks and the deputies (other than the ex-officio deputies) shall be determined annually by the county board and shall be paid from the county treasury. (Source: P.A. 83-121; 88-455.)

Sec. 2-60. Vacancies.

(a) When any township or multi-township assessment district fails to elect an assessor or when an assessor's office becomes vacant for any reason specified in Section 25-2 of the Election Code, the township or multi-township board of trustees shall fill the vacancy in townships or multi-township assessment districts by appointing a person qualified as required under Section 2-45 or as revised by the Department under Section 2-52. A person appointed to fill a vacancy under this Section must be a member of the same political party as the person vacating the office if the person vacating the office was a member of an established political party, as defined in Section 10-2 of the Election Code, that is still in existence at the time the appointment is made. The appointee shall establish his or her political party affiliation by his or her record of voting in party primary elections or by holding or having held an office in a political party organization before the appointment. If the appointee has not voted in a party primary election or is not holding or has not held an office in a political party organization before the appointment, then the appointee shall establish his or her political party affiliation by his or her record of participating in a political party's nomination or election caucus.

(b) In the alternative, a township or multi-township assessment district shall contract with a person qualified as required under Section 2-45 or as revised by the Department under Section 2-52 to do the assessing at a cost no greater than the maximum salary authorized for that township or multi-township assessment district under Section 2-70.

(Source: P.A. 89-342, eff. 1-1-96; 89-441, eff. 6-1-96; 90-748, eff. 8-14-98.)

Sec. 2-65. Deputies and employees.

(a) In all counties under township organization where a township or multi-township assessor is unable alone to perform all duties of the office, he or she may appoint one or more suitable persons as deputies to assist in making the assessment, and may appoint other employees required for operation of the office. The deputies and other employees may be employed on an annual, monthly or daily basis.

(b) Every township or multi-township assessor with 5 or more deputies and other employees shall adopt rules concerning all benefits available to employees. The rules shall include, without limitation, the following benefits to the extent they are applicable: insurance coverage, compensation, overtime pay, compensatory time off, holidays, vacations, sick leave, and maternity leave. The rules shall be adopted and filed with the township clerk within 4 months after the assessor takes office. A multi-township assessor shall file the rules with the clerk of each township in the district. Amendments to the rules shall be filed with the appropriate township clerk or clerks by their effective date.

(Source: P.A. 87-818; 88-455.)

Sec. 2-70. Salary.

Each multi-township board of trustees shall set the salary of its multi-township assessor at least 150 days before his or her election. Each township board of trustees shall set the salary of its township assessor at the same time it sets the compensation of its township supervisor. (Source: P.A. 90-210, eff. 7-25-97.)

Sec. 2-75. Affidavit for time employed.

When compensation of a township or multi-township assessor or his or her deputy is based upon the time actually employed in the making of assessments, the assessors and deputies shall make an affidavit of the time so employed. Payments of the compensation and expenses under Sections 2-65, 2-70 and 2-80 shall be paid out of the township or multi-township treasury. (Source: Laws 1967, p. 388; P.A. 88-455.)

Sec. 2-80. Expenses and office needs.

Township and multi-township assessors shall receive travel and transportation expenses in the amount determined by the board of town trustees, and shall be reimbursed for their reasonable travel, meal, lodging and registration expenses incurred in attendance at a school of instruction prescribed by the Department. The board of town trustees shall provide the office and storage space, equipment, office supplies, deputies and clerical and stenographic personnel and other items as are necessary for the efficient operation of the office. (Source: P.A. 83-1277; 88-455.)

**Article 4. Assessment Officials -
Other Provisions**

Sec. 4-5. State compensation not to affect county compensation.

Any additional compensation payable from State funds to any county officer under this Code shall not affect any other compensation provided by law to be paid to the county officer. No county board may reduce or otherwise impair the compensation payable to a county officer because the person receives additional compensation payable from State funds under this Code. However, a county board may include State funds payable under this Code as reimbursements of or contributions to county officer salaries in determining the compensation of a county officer. As used in this Section, “county officer” includes any local assessment officer whose compensation is determined in whole or in part by a county board. (Source: P.A. 86-348; 88-455.)

Sec. 4-10. Compensation for Certified Illinois Assessing Officers.

Subject to the requirements for continued training, any supervisor of assessments, assessor, deputy assessor or member of a board of review in any county who has earned a Certified Illinois Assessing Officers Certificate from the Illinois Property Assessment Institute shall receive from the State, out of funds appropriated to the Department, additional compensation of \$500 per year.

To receive a Certified Illinois Assessing Officer certificate, a person shall complete successfully and pass examinations on a basic course in assessment practice approved by the Department and conducted by the Institute and additional courses totaling not less than 60 class hours that are designated and approved by the Department, on the cost, market and income approaches to value, mass appraisal techniques, and property tax administration.

To continue to be eligible for the additional compensation, a Certified Illinois Assessing Officer must complete successfully a minimum of 15 class hours requiring a written examination, and the equivalent of one seminar course of 15 class hours which does not require a written examination, in each year for which additional compensation is sought after receipt of the certificate. The Department shall designate and approve courses acceptable for additional training, including courses in business and computer techniques, and class hours applicable to each course. The Department shall specify procedures for certifying the completion of the additional training.

The courses and training shall be conducted annually at various convenient locations throughout the State. At least one course shall be conducted annually in each county with more than 400,000 inhabitants. (Source: P.A. 88-455; 89-126, eff. 7-11-95; 89-671, eff. 8-14-96.)

Sec. 4-15. Compensation of local assessment officers holding other designations.

Any assessor, deputy assessor or member of a board of review who has been awarded a Certified Assessment Evaluator certificate by the International Association of Assessing Officers shall receive an additional compensation of \$500 per year from funds appropriated to the Department.

Any assessor, deputy assessor or member of a board of review who has been awarded a Residential Evaluation Specialist, Assessment Administration Specialist, or Cadastral Mapping Specialist certificate by the International Association of Assessing Officers, but who has not been awarded a Certified Assessment Evaluator certificate, shall receive additional compensation of \$250 per year from funds appropriated to the Department. If any assessor, deputy assessor, or member of a board of review has been awarded more than one certificate, but has not been awarded a Certified Assessment Evaluator certificate, the maximum additional compensation shall be \$250.

To continue to qualify for the additional compensation after receipt of a certificate, any assessor, deputy assessor or member of a board of review must, each year that additional compensation is sought, complete successfully a minimum of 15 class hours requiring a written examination, and the equivalent of one seminar course of 15 class hours which does not require a written examination. (Source: P.A. 91-436, eff. 8-6-99.)

Sec. 4-20. Additional compensation based on performance.

Any assessor in counties with less than 3,000,000 but more than 50,000 inhabitants each year may petition the Department to receive additional compensation based on performance. To receive additional compensation, the official's assessment jurisdiction must meet the following criteria:

- (1) the median level of assessment must be no more than 35 1/3% and no less than 31 1/3% of fair cash value of property in his or her assessment jurisdiction; and
- (2) the coefficient of dispersion must not be greater than 15%.

For purposes of this Section, "coefficient of dispersion" means the average deviation of all assessments from the median level. For purposes of this Section, the number of inhabitants shall be determined by the latest federal decennial census. When the most recent census shows an increase in inhabitants to over 50,000 or a decrease to 50,000 or fewer, then the assessment year used to compute the coefficient of dispersion and the most recent year of the 3-year average level of assessments is the year that determines qualification for additional compensation. The Department will promulgate rules and regulations to determine whether an assessor meets these criteria.

Any assessor in a county of 50,000 or fewer inhabitants may petition the Department for consideration to receive additional compensation each year based on performance. In order to receive the additional compensation, the assessments in the official's assessment jurisdiction must meet the following criteria: (i) the median level of assessments must be no more than 35 1/3% and no less than 31 1/3% of fair cash value of property in his or her assessment jurisdiction; and (ii) the coefficient of dispersion must not be greater than 40% in 1994, 38% in 1995, 36% in 1996, 34% in 1997, 32% in 1998, and 30% in 1999 and every year thereafter.

Real estate transfer declarations used by the Department in annual sales-assessment ratio studies will be used to evaluate applications for additional compensation. The Department will audit other property to determine if the sales-assessment ratio study data is representative of the assessment jurisdiction. If the ratio study is found not representative, appraisals and other information may be utilized. If the ratio study is representative, upon certification by the Department, the assessor shall receive additional compensation of \$3,000 for that year, to be paid out of funds appropriated to the Department.

As used in this Section, “assessor” means any township or multi-township assessor, or supervisor of assessments. (Source: P.A. 93-643, eff. 6-1-04.)

Sec. 4-25. Bond of assessors.

Before entering office, every assessor and supervisor of assessments, other than township or multi-township assessors, shall enter into a bond, payable to the People of the State of Illinois in the sum of two thousand dollars, or such larger sum as the county board shall determine, with two or more sufficient sureties.

The bond of the supervisor of assessments shall be approved by the county board, and bonds of other assessors by the president or chairman of the county board. The condition of the bond shall be that the assessor or supervisor of assessments will diligently, faithfully and impartially perform the duties of the office during the term or portion thereof for which he or she was elected or appointed. The bond shall be filed in the office of the county clerk and recorded in a book to be provided for those bonds. Any taxing district, or person suffering any loss resulting from an assessor’s failure to perform any of the conditions of the bond may sue to recover the loss in the name of the People of the State of Illinois. (Source: P.A. 87-1021; 87-1189; 88-455.)

Sec. 4-30. Oath of assessors.

Before entering office, every assessor or supervisor of assessments shall take and subscribe to the following oath, which shall be filed in the office of the county clerk, except the oath of township or multi-township assessors and their deputies shall be filed with their respective town clerks. The oath shall be as follows:

State of Illinois)
)ss.
County of)

I do solemnly swear (or affirm) that I will support the Constitution of the United States and the Constitution of the State of Illinois; and that I will faithfully discharge all the duties of the office of assessor, or supervisor of assessments to the best of my ability.

Dated.....

(Source: P.A. 87-1021; 87-1189; 88-455.)

TITLE 3. VALUATION AND ASSESSMENT

Article 9. General Valuation Procedures

Division 1. Office Operations

Sec. 9-5. Rules.

Each county assessor, board of appeals, and board of review shall make and publish reasonable rules for the guidance of persons doing business with them and for the orderly dispatch of business.

In counties with 3,000,000 or more inhabitants, the county assessor and board of appeals (ending the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter), jointly shall make and prescribe rules for the assessment of property and the preparation of the assessment books by the township assessors in their respective townships and for the return of those books to the county assessor. (Source: P.A. 88-455; 89-126, eff. 7-11-95; 89-671, eff. 8-14-96.)

Sec. 9-10. Office hours.

The offices of the chief county assessment officer shall be open all the year during business hours to hear or receive complaints or suggestions that property has not been properly assessed. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-15. Annual meeting of supervisor of assessments.

In all counties of township organization having a supervisor of assessments, the supervisor of assessments shall, by January 1 of each year, assemble all assessors and their deputies for consultation and shall instruct them in uniformity of their functions. The instructions shall be in writing and available to the public. Notice of the annual assembly shall be published not more than 30 nor less than 10 days before the assembly in a newspaper published in the township or the tax assessment district, and if there is no such newspaper, in a newspaper published in the county and in general circulation in the township or tax assessment district. At the time of publishing the notice, a press release giving notice of the assembly shall be given to each newspaper published in the county and to each commercial broadcasting station whose main office is located in the county. The assembly is open to the public.

Any assessor or deputy assessor who wilfully refuses or neglects to observe or follow instructions of the supervisor of assessments, which are in accordance with law, shall be guilty of a Class B misdemeanor. Any supervisor of assessments who willfully gives directions which are not in accordance with law is guilty of a Class B misdemeanor. (Source: P.A. 84-837; 88-455.)

Sec. 9-20. Property record cards.

In all counties, all property record cards maintained by a township assessor, multi-township assessor, or chief county assessment officer shall be public records, and shall be available for public inspection during business hours, subject to reasonable rules and regulations of the custodian of the records. Upon request and payment of such reasonable fee established by the custodian, a copy or printout shall be provided to any person.

Property record cards may be established and maintained on electronic equipment or microfiche, and that system may be the exclusive record of property information. (Source: P.A. 83-1312; 88-455.)

Sec. 9-25. Township property record cards.

In counties under township organization, the township assessors and multi-township assessors shall allow the supervisor of assessments to make a duplicate copy of any or all records compiled and maintained by the township assessor and multi-township assessor. The supervisor of assessments shall make and maintain a complete set of property record cards. The township or multi-township assessor shall supply the supervisor of assessments with a copy of all new property record cards as they are added to the tax rolls. (Source: P.A. 84-837; 88-455.)

Sec. 9-30. Property records systems - Townships and multi-townships.

The township or multi-township assessor may spend funds for the preparation, establishment and maintenance of a detailed property record system which would provide information useful to assessment officials. The assessor also may enter into contracts with persons, firms or corporations for the preparation and establishment of the record system. The property record system shall include up-to-date and complete tax maps, ownership lists, valuation standards and property record cards, including appraisals, for all or any part of the property in the township or multi-township assessment district in accordance with reasonable rules and procedures prescribed by the Department, but the system and records shall not be consid-

ered to be assessments nor limit the powers and duties of assessing officials. The record shall be available to all assessing officials and to the public. (Source: P.A. 82-554; 88-455.)

Sec. 9-35. County tax maps - Supervisor of assessments.

Except as provided in Section 5-1108 of the Counties Code, each supervisor of assessments shall prepare and maintain, in accordance with rules and procedures prescribed by the Department, tax maps and up-to-date lists of property owners' names and addresses and property record cards for all of the property in the county, and shall procure at regular intervals from the records maintained by the county recorder information relating to transfers of property. The supervisor of assessments shall not, however, duplicate the work of any full-time township assessor or multi-township assessor who maintains up-to-date and complete tax maps, ownership lists and property record cards in accordance with rules and procedures prescribed by the Department. This shall not preclude the maintenance of duplicate records in the supervisor of assessments' office. This Section shall not prohibit the preparation and setting up of a property record system (including appraisals) and property record cards as provided for in other Acts, but such system and records shall not be considered to be assessments nor limit the powers and duties of the assessors as provided by this Code. Systems and records or copies of them set up under other Acts may be maintained by the supervisor of assessments in his or her office. In preparing the original tax maps, lists and property record cards, he or she shall consult with the Department and the Department shall furnish to the officer such supplies and equipment as may, in its judgment, be necessary to set up the original set of maps, lists and records required by this Section. (Source: P.A. 86-482; 86-1475; 88-455.)

Sec. 9-40. County tax maps; County assessor.

In any county with less than 3,000,000 inhabitants which elects a county assessor under Section 3-45, the county assessor shall, except as provided in Section 5-1108 of the Counties Code, prepare and maintain tax maps, up-to-date lists of property owners' names and addresses, and property record cards for all of the property in the county. Those documents shall be prepared and maintained in accordance with rules and procedures prescribed by the Department. The county assessor also shall procure at regular intervals from the records maintained by the recorder information relating to transfers of property. The county assessor shall not duplicate the work of any fulltime township assessor who maintains up-to-date and complete tax maps, ownership lists and property record cards in

accordance with rules and procedures prescribed by the Department, but this shall not preclude the maintenance of duplicate copies of those records in the county assessor's office. This Section does not prohibit the preparation and setting up of a property record system (including appraisals) and property record cards as provided for in other Acts, but the system and records shall not be considered to be assessments nor limit the powers and duties of the assessors under this Code. Systems and records or copies of them set up under such other Acts may be maintained by the county assessor in his or her office. In preparing the original tax maps, lists and property record cards, the county assessor shall consult with the Department. The Department shall furnish to that officer supplies and equipment as may, in its judgment, be necessary to set up the original set of maps, lists and records required by this Section. (Source: P.A. 86-1475; 88-455.)

Sec. 9-45. Property index number system.

The county clerk in counties of 3,000,000 or more inhabitants and, subject to the approval of the county board, the chief county assessment officer or recorder, in counties of less than 3,000,000 inhabitants, may establish a property index number system under which property may be listed for purposes of assessment, collection of taxes or automation of the office of the recorder. The system may be adopted in addition to, or instead of, the method of listing by legal description as provided in Section 9-40. The system shall describe property by township, section, block, and parcel or lot, and may cross-reference the street or post office address, if any, and street code number, if any. The county clerk, county treasurer, chief county assessment officer or recorder may establish and maintain cross indexes of numbers assigned under the system with the complete legal description of the properties to which the numbers relate. Index numbers shall be assigned by the county clerk in counties of 3,000,000 or more inhabitants, and, at the direction of the county board in counties with less than 3,000,000 inhabitants, shall be assigned by the chief county assessment officer or recorder. Tax maps of the county clerk, county treasurer or chief county assessment officer shall carry those numbers. The indexes shall be open to public inspection and be made available to the public. Any property index number system established prior to the effective date of this Code shall remain valid. However, in counties with less than 3,000,000 inhabitants, the system may be transferred to another authority upon the approval of the county board.

Any real property used for a power generating or automotive manufacturing facility located within a county of less than 1,000,000 inhabitants, as to which litigation with respect to its assessed valuation is pending or was pending as of January 1, 1993, may be the subject of a real property tax assessment settlement agreement among the taxpayer and taxing districts in which it is situated. Other appropriate authorities, which may include county and State boards or officials, may also be parties to such an agreement. Such an agreement may include the assessment of the facility for any years in dispute as well as for up to 10 years in the future. Such an agreement may provide for the settlement of issues relating to the assessed value of the facility and may provide for related payments, refunds, claims, credits against taxes and liabilities in respect to past and future taxes of taxing districts, including any fund created under Section 20-35 of this Act, all implementing the settlement agreement. Any such agreement may provide that parties thereto agree not to challenge assessments as provided in the agreement. An agreement entered into on or after January 1, 1993 may provide for the classification of property that is the subject of the agreement as real or personal during the term of the agreement and thereafter. It may also provide that taxing districts agree to reimburse the taxpayer for amounts paid by the taxpayer in respect to taxes for the real property which is the subject of the agreement to the extent levied by those respective districts, over and above amounts which would be due if the facility were to be assessed as provided in the agreement. Such reimbursement may be provided in the agreement to be made by credit against taxes of the taxpayer. No credits shall be applied against taxes levied with respect to debt service or lease payments of a taxing district. No referendum approval or appropriation shall be required for such an agreement or such credits and any such obligation shall not constitute indebtedness of the taxing district for purposes of any statutory limitation. The county collector shall treat credited amounts as if they had been received by the collector as taxes paid by the taxpayer and as if remitted to the district. A county treasurer who is a party to such an agreement may agree to hold amounts paid in escrow as provided in the agreement for possible use for paying taxes until conditions of the agreement are met and then to apply these amounts as provided in the agreement. No such settlement agreement shall be effective unless it shall have been approved by the court in which such litigation is pending. Any such agreement which has been entered into prior to adoption of this amendatory Act of 1988 and which is contingent upon enactment of authorizing legislation shall be binding and enforceable. (Source: P.A. 88-455; 88-535; 88-670, eff. 12-2-94.)

Sec. 9-50. Maps and plats.

The chief county assessment officer may make or purchase maps and plats that will facilitate the business of his or her office. The maps and plats shall always remain in the office, and will be open and accessible to the public. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-55. Survey by owner.

When a property is divided into parcels so that it cannot be described without describing it by metes and bounds, it is the duty of the owner to have the land surveyed and platted into lots. The platting shall be in accord with the Plat Act. The plat shall be certified and recorded. Any unit of local government responsible for issuing building permits may require, by ordinance, that the plat be certified and recorded before the building permit is issued, unless a subdivision plat is not required under subsection (b) of Section 1 of the Plat Act. The description of property, in accordance with the number and description in the plat, shall be a valid description of the property described. However, no plat of a subdivision, vacation or dedication of a tract of land shall be approved by a city, incorporated town or village officer, nor shall any recorder record a plat, unless a statement from the county clerk is endorsed thereon showing that he or she finds no delinquent general taxes, unpaid current general taxes, delinquent special assessments or unpaid current special assessments against the tract of land. No officer of a city, village or incorporated town shall approve the plat of a subdivision of a tract of land until all deferred installments of outstanding unpaid special assessments are either certified as paid by the proper collector, or a division thereof is made in accord with the proposed subdivision and duly approved by the court that confirmed the special assessment. (Source: P.A. 90-788, eff. 8-14-98.)

Sec. 9-60. County clerk survey.

If the owner of a property refuses or neglects to have a survey made, the county clerk shall notify the owner that the clerk will make the survey. The notice shall be published at least three times in a newspaper having a general circulation in the county. If the owner does not make the survey within 30 days of the last notice, the clerk shall have the survey made and recorded in accord with the Plat Act. The expenses of publication and of making the survey shall be added to the tax levied on the property, and shall be paid on demand to the persons to whom they are due. (Source: Laws 1967, p. 2519; P.A. 88-455.)

Sec. 9-65. Reassessment after platting.

Except as otherwise provided by Section 10-30 with respect to assessments made in counties with less than 3,000,000 inhabitants, whenever acreage property has been subdivided into lots and the subdivision has been recorded, the lots shall be reassessed and placed upon the assessor's books, replacing the acreage property, as of the first day of January immediately following the date of the recording or filing of the subdivision. (Source: P.A. 83-358; 83-837; 83-1362; 88-455.)

Division 2. Assessment authority**Sec. 9-70. Assessment authority.**

The Department shall assess all pollution control facilities, low sulfur dioxide emission coal fueled devices, and property owned or used by railroad companies operating within this State, except noncarrier real estate. Local assessment officers shall assess all other property not exempted from taxation. (Source: P.A. 81-838; 88-455.)

Sec. 9-75. Revisions of assessments; Counties of less than 3,000,000.

The chief county assessment officer of any county with less than 3,000,000 inhabitants, or the township or multi-township assessor of any township in that county, may in any year revise and correct an assessment as appears to be just. Notice of the revision shall be given in the manner provided in Section 12-10 and 12-30 to the taxpayer whose assessment has been changed. (Source: P.A. 81-838; 88-455.)

Sec. 9-80. Authority to revise assessments; Counties of less than 3,000,000.

The chief county assessment officer in counties with less than 3,000,000 inhabitants shall have the same authority as the township or multi-township assessor to assess and to make changes or alterations in the assessment of property, and shall assess and make such changes or alterations in the assessment of property as though originally made. Changes by the chief county assessment officer in valuations shall be noted in a column provided, and no change shall be made in the original assessor's figures.

When the chief county assessment officer or his or her deputy views property for the purposes of assessing the property or determining whether a change or alteration in the assessment of the property is

required, he or she shall give notice to the township assessor by U.S. Mail at least 5 days but not more than 30 days prior to the viewing, so that the assessor may arrange to be present at the viewing. He or she shall also give notice to owners of the properties by means of notices in a paper of general circulation in the township. The notices shall state the chief county assessment officer's intention to view the property but need not specify the date and time of the viewing. When the chief county assessment officer or his or her deputy is present at the property to be viewed, immediately prior to the viewing, he or she shall make a reasonable effort to ascertain if the owner or his or her representative, or the assessor, are on the premises and to inform them of his or her intention to view the property. Failure to provide notice to the township assessor and owner shall not of and by itself invalidate any change in an assessment. A viewing under this Section and Section 9-155 means actual viewing of the visible property in its entirety from, on or at the site of the property.

All changes and alterations in the assessment of property shall be subject to revision by the board of review in the same manner that original assessments are reviewed. (Source: P.A. 81-0838; 81-1055; 81-1509; 88-455.)

Sec. 9-85. Revision of assessments by county assessor and board of review; Counties of 3,000,000 or more.

In counties with 3,000,000 or more inhabitants, the county assessor shall have authority annually to revise the assessment books and correct them as appears to be just; and on complaint in writing in proper form by any taxpayer, and after affording the taxpayer an opportunity to be heard thereon, he or she shall do so at any time, until the assessment is verified. An entry upon the assessment books does not constitute an assessment until the assessment is verified. When a notice is to be mailed under Section 12-55 and the address that appears on the assessor's records is the address of a mortgage lender or the trustee, where title to the property is held in a land trust, or in any event whenever the notice is mailed by the assessor to a taxpayer at or in care of the address of a mortgage lender or a trustee where the title to the property is held in a land trust, the mortgage lender or the trustee within 15 days of the mortgage lender's or the trustee's receipt of such notice shall mail a copy of the notice to each mortgagor of the property referred to in the notice at the last known address of each mortgagor as shown on the records of the mortgage lender, or to each beneficiary as shown on the records of the trustee.

All changes and alterations pursuant to Section 16-95 or Section 16-120 in the assessment of property shall be subject to revision and entry into the assessment books by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter) in the same manner as the original assessments. (Source: P.A. 88-455; 89-126, eff. 7-11-95; 89-671, eff. 8-14-96.)

Division 3. Assessment books

Sec. 9-90. Procuring assessment books.

The county clerk shall procure all necessary books and blanks required by this Code to be used in the assessment of property and collection of taxes, at the expense of the county.

(Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-95. Listing of property.

All property subject to taxation under this Code, including property becoming taxable for the first time, shall be listed by the proper legal description in the name of the owner, and assessed at the times and in the manner provided in Sections 9-215 through 9-225, and also in any year that the Department orders a reassessment (to the extent the reassessment is so ordered), with reference to the amount owned on January 1 in the year for which it is assessed, including all property purchased that day. The assessment, as modified or equalized or changed as provided by law, shall be the assessment upon which taxes shall be levied and extended during the general assessment period for which the assessment is made, or during the remainder of that general assessment period for any property reassessed by order of the Department. No assessment shall be considered illegal by reason of not having been listed or assessed in the name of the owner or owners. (Source: P.A. 85-1221; 86-1481; 88-455.)

Sec. 9-100. Assessment list; Delivery of books.

Before January 1 in each year of the general assessment, as provided in Sections 9-215 through 9-225, each county clerk shall make up the list of property to be assessed for taxes for the townships or taxing districts in the county, in books for that purpose. Annually, before January 1, he or she shall make up lists of properties which are taxable, or which become taxable for the first time, and which are not already listed, and make up lists of properties which have been subdivided and not listed by the proper description. The county clerk shall enter in the proper column, opposite the respective par-

cels, the name of the owner, or other such persons, so far as he is able to ascertain the names. The lists shall contain columns to show the number of acres or lots improved, and the assessed value; the assessed value of improvements; the total value; and other information as may be required. The county clerk shall also have prepared and ready for delivery all blanks necessary in the assessment of property, and shall deliver those blanks to the assessors along with the assessment books or lists. The books or lists may be completed and delivered by townships or taxing districts without waiting for the completion of all the books or lists, but all assessment books or lists shall be delivered by the county clerk to the chief county assessment officer on or before January 1. The books or lists shall be made in duplicate. (Source: P.A. 86-1481; 88-455.)

Sec. 9-105. Makeup of assessment books by townships.

The books for the assessment of property, in counties not under township organization, shall be made up by congressional townships, but parts or fractional townships may be added to full townships, at the discretion of the county board. In counties under township organization, the books shall be made to correspond with the organized townships. Separate books shall be made for the assessment of property and the collection of all taxes and special assessments thereon, within the corporate limits of cities, incorporated towns and villages, if ordered by the county board. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-110. Railroad assessment book.

The county clerk shall procure, at the expense of the county, a record book in a form prescribed by the Department, in which to enter railroad property as listed for taxation, and shall enter the valuations assessed, corrected and equalized in the manner provided by law. The county clerk shall extend all the taxes for which the property is liable against its equalized assessed value. At the time fixed by law for delivering tax books to the county collector, the clerk shall attach a warrant, under his or her seal of office, and deliver the book to the county collector. The county collector shall collect the taxes charged against railroad property, and pay over and account for the taxes in the manner provided in other cases. The book shall be returned by the collector and filed in the office of the county clerk. The taxes on all railroad property shall be extended as on other property, and shall be subject to the same penalties, dates of payment and methods of enforcement as other property taxes. (Source: Laws 1945, p. 1212; P.A. 88-455.)

Sec. 9-115. Parcels in more than one taxing district.

When any property is situated in more than one township or taxing district, or is situated and assessed in any drainage district, for drainage purposes, the portion in each township or taxing district shall be listed separately. The lands in any drainage district shall be listed so as to correspond, as nearly as possible, to the respective subdivisions and descriptions in the latest assessment roll of the drainage district. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-120. Combined listings.

When a whole section, half section, quarter section, or half-quarter section of property, belongs to the same owner, it may, and shall, at the request of the owner or his or her agent, be listed as one tract, and when all lots in the same block belong to the same owner they may, and shall, at the request of the owner or his or her agent, be listed as a block. When several adjoining lots in the same block belong to the same owner, they may, and shall, at the request of the owner or his or her agent, be included in one description. However, this Section shall not apply to property on which delinquent or forfeited taxes are outstanding. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-125. Verification of assessment lists.

The county clerk shall compare the lists of property with the list of taxable property on file in his or her office. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-130. Delivery of assessment books.

The chief county assessment officer shall call upon the county clerk on or before the first day of January in each year and receive the assessment books and blanks as prepared by the county clerk for the assessment of property for that year. (Source: P.A. 86-678; 88-455.)

Sec. 9-135. Correction of assessment lists.

If the assessor or chief county assessment officer finds that any property subject to taxation, or special assessment, has not been returned to him or her by the clerk, or has not been described in the subdivisions or manner required by this Code, he or she shall correct the return of the clerk, and shall list and assess the property in the manner required by law.

The assessor or chief county assessment officer shall, also, from time to time, make alterations in the description of property as he or she may find necessary. When property has been subdivided since the making of the general assessment, the assessor or chief county assessment officer shall from time to time correct the descriptions so that they correspond to the subdivision, and distribute the assessment in the proper proportions among the parcels into which the land has been subdivided; and in case of a vacation of a subdivision readjust the description of the assessment accordingly. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 9-140. Loss or destruction of assessment books.

When all or any part of the assessment rolls or collectors' books of any county, or other taxing district are lost or destroyed by any means whatever, a new assessment, or new books, as the case may require, shall be made under the direction of the county board. The board shall, in those cases, fix reasonable times and dates for performing the work of assessment, equalization, levy, extension and collection of taxes, and paying over the same, or making new books, as the circumstances of the case may require. All provisions of this Code apply to the dates fixed by the county board, in the same manner that they apply to the dates for similar purposes, as fixed by this Code. The presiding officer of the county board may select and appoint persons, with the advice and consent of the county board, when he or she finds it necessary, to carry out provisions of this section. (Source: P.A. 78-1128; 88-455.)

Division 4. Valuation procedures

Sec. 9-145. Statutory level of assessment.

Except in counties with more than 200,000 inhabitants which classify property for purposes of taxation, property shall be valued as follows:

- (a) Each tract or lot of property shall be valued at 33 1/3% of its fair cash value.
- (b) Each taxable leasehold estate shall be valued at 33 1/3% of its fair cash value.
- (c) Each building or structure which is located on the right of way of any canal, railroad or other company leased or granted to another company or person for a term of years, shall be valued at 33 1/3% of its fair cash value.

(d) Any property on which there is a coal or other mine, or stone or other quarry, shall be valued at 33 1/3% of its fair cash value. Oil, gas and other minerals, except coal, shall have value and be assessed separately at 33 1/3% of the fair cash value of such oil, gas and other minerals. Coal shall be assessed separately at 33 1/3% of the coal reserve economic value, as provided in Sections 10-170 through 10-200.

(e) In the assessment of property encumbered by public easement, any depreciation occasioned by such easement shall be deducted in the valuation of such property. Any property dedicated as a nature preserve or as a nature preserve buffer under the Illinois Natural Areas Preservation Act, for the purposes of this paragraph, is encumbered by a public easement and shall be depreciated for assessment purposes to a level at which its valuation shall be \$1 per acre or portion thereof.

This Section is subject to and modified by Sections 10-110 through 10-140 and 11-5 through 11-65. (Source: P.A. 91-497, eff. 1-1-00.)

Sec. 9-150. Classification of property.

Where property is classified for purposes of taxation in accordance with Section 4 of Article IX of the Constitution and with such other limitations as may be prescribed by law, the classification must be established by ordinance of the county board. If not so established, the classification is void. (Source: P.A. 78-700; 88-455.)

Sec. 9-155. Valuation in general assessment years.

On or before June 1 in each general assessment year in all counties with less than 3,000,000 inhabitants, and as soon as he or she reasonably can in each general assessment year in counties with 3,000,000 or more inhabitants, or if any such county is divided into assessment districts as provided in Sections 9-215 through 9-225, as soon as he or she reasonably can in each general assessment year in those districts, the assessor, in person or by deputy, shall actually view and determine as near as practicable the value of each property listed for taxation as of January 1 of that year, or as provided in Section 9-180, and assess the property at 33 1/3% of its fair cash value, or in accordance with Sections 10-110 through 10-140 and 10-170 through 10-200, or in accordance with a county ordinance adopted under Section 4 of Article IX of the Constitution of Illinois. The assessor or deputy shall set down, in the books furnished for that purpose the assessed valuation of properties in one column, the assessed value of improvements in another, and the total valuation in a separate column. (Source: P.A. 86-1481; 87-1189; 88-455.)

Sec. 9-160. Valuation in years other than general assessment years.

On or before June 1 in each year other than the general assessment year, in all counties with less than 3,000,000 inhabitants, and as soon as he or she reasonably can in counties with 3,000,000 or more inhabitants, the assessor shall list and assess all property which becomes taxable and which is not upon the general assessment, and also make and return a list of all new or added buildings, structures or other improvements of any kind, the value of which had not been previously added to or included in the valuation of the property on which such improvements have been made, specifying the property on which each of the improvements has been made, the kind of improvement and the value which, in his or her opinion, has been added to the property by the improvements. The assessment shall also include or exclude, on a proportionate basis in accordance with the provisions of Section 9-180, all new or added buildings, structures or other improvements, the value of which was not included in the valuation of the property for that year, and all improvements which were destroyed or removed. In case of the destruction or injury by fire, flood, cyclone, storm or otherwise, or removal of any structures of any kind, or of the destruction of or any injury to orchard timber, ornamental trees or groves, the value of which has been included in any former valuation of the property, the assessor shall determine as near as practicable how much the value of the property has been diminished, and make return thereof.

Beginning January 1, 1996, the authority within a unit of local government that is responsible for issuing building or occupancy permits shall notify the chief county assessment officer, by December 31 of the assessment year, when a full or partial occupancy permit has been issued for a parcel of real property. The chief county assessment officer shall include in the assessment of the property for the current year the proportionate value of new or added improvements on that property from the date the occupancy permit was issued or from the date the new or added improvement was inhabitable and fit for occupancy or for intended customary use until December 31 of that year. If the chief county assessment officer has already certified the books for the year, the board of review or interim board of review shall assess the new or added improvements on a proportionate basis for the year in which the occupancy permit was issued or the new or added improvement was inhabitable and fit for occupancy or for intended customary use. The proportionate value of the new or added improvements may be assessed by the board of review or interim board of review as omitted property pursuant to Sections 9-265, 9-270, 16-50 and 16-140 in a subsequent year on a proportionate basis for the year in which the occupancy permit was

issued or the new or added improvement was inhabitable and fit for occupancy or for intended customary use if it was not assessed in that year. (Source: P.A. 91-486, eff. 1-1-00.)

Sec. 9-165. Definitions.

As used in Sections 9-160 and 9-180:

"Municipality" means a city, village or incorporated town.

"Governing body" means (a) the corporate authorities of a municipality with respect to territory within its corporate limits and (b) the county board with respect to territory in the county not within the corporate limits of any municipality.

"Occupancy permit" means the certificate or permit, by whatever name denominated, which a municipality or county, under its authority to regulate the construction of buildings, issues as evidence that all applicable requirements have been complied with and requires before any new, reconstructed or remodeled building may be lawfully occupied. (Source: P.A. 91-357, eff. 7-29-99; 91-486, eff. 1-1-00.)

Sec. 9-170. (Repealed).

(Source: P.A. 88-455. Repealed by 89-412, eff. 11-17-95.)

Sec. 9-175. Owner on assessment date.

The owner of property on January 1 in any year shall be liable for the taxes of that year, except that when coal has been separated from the land by deed or lease, the owner or lessee of the coal shall be liable for the taxes on the coal in the year of first production and each year thereafter until production ceases. Subject to the provisions of Section 20-210 for payment of current taxes on a specified part or undivided share of property, in all cases of property having more than one owner as of January 1 of any year, each owner is liable jointly and severally in any action under Section 21-440 for all taxes of that year. (Source: P.A. 86-949; 87-818; 88-455.)

Sec. 9-180. Pro-rata valuations; improvements or removal of improvements.

The owner of property on January 1 also shall be liable, on a proportionate basis, for the increased taxes occasioned by the construction of new or added buildings, structures or other improvements on the

property from the date when the occupancy permit was issued or from the date the new or added improvement was inhabitable and fit for occupancy or for intended customary use to December 31 of that year. The owner of the improved property shall notify the assessor, within 30 days of the issuance of an occupancy permit or within 30 days of completion of the improvements, on a form prescribed by that official, and request that the property be reassessed. The notice shall be sent by certified mail, return receipt requested and shall include the legal description of the property.

When, during the previous calendar year, any buildings, structures or other improvements on the property were destroyed and rendered uninhabitable or otherwise unfit for occupancy or for customary use by accidental means (excluding destruction resulting from the willful misconduct of the owner of such property), the owner of the property on January 1 shall be entitled, on a proportionate basis, to a diminution of assessed valuation for such period during which the improvements were uninhabitable or unfit for occupancy or for customary use. The owner of property entitled to a diminution of assessed valuation shall, on a form prescribed by the assessor, within 90 days after the destruction of any improvements or, in counties with less than 3,000,000 inhabitants within 90 days after the township or multi-township assessor has mailed the application form as required by Section 9-190, file with the assessor for the decrease of assessed valuation. Upon failure so to do within the 90 day period, no diminution of assessed valuation shall be attributable to the property.

Computations under this Section shall be on the basis of a year of 365 days. (Source: P.A. 91-486, eff. 1-1-00.)

Sec. 9-185. Change in use or ownership.

The purchaser of property on January 1 shall be considered as the owner on that day. However, when a fee simple title or lesser interest in property is purchased, granted, taken or otherwise transferred for a use exempt from taxation under this Code, that property shall be exempt from taxes from the date of the right of possession, except that property acquired by condemnation is exempt as of the date the condemnation petition is filed. Whenever a fee simple title or lesser interest in property is purchased, granted, taken or otherwise transferred from a use exempt from taxation under this Code to a use not so exempt, that property shall be subject to taxation from the date of purchase or conveyance. It shall be the obligation of the titleholder of record in such cases where there is a change in use or a change in a leasehold estate or, in cases where there has been a purchase,

grant, taking or transfer, it is the obligation of the transferee to notify the chief county assessment officer within 30 days of that action. Failure to give the notification, resulting in the assessing official continuing to list the property as exempt in subsequent years, shall cause the property to be considered omitted property for the purpose of this Code. In those cases the county collector is authorized to issue a tax bill to the person holding title to the property in that part of the year during which it was not exempt from taxation for that part of the year and to accept payment of the bill as full and final settlement of tax liability for the year involved. (Source: P.A. 86-949; 87-818; 88-455.)

Sec. 9-190. Damaged or destroyed property.

- (a) When a property in a county with less than 3,000,000 inhabitants has been destroyed or rendered uninhabitable or otherwise unfit for occupancy or customary use by natural disaster or accidental means, the township assessor shall send to the owner by certified mail an application form for reduction of the assessed valuation of that property as provided in Section 9-180.
- (b) Whenever an official, employee, or other representative of a municipal fire department, fire protection district, volunteer fire protection association, or emergency services and disaster agency of a political subdivision of this State is required by law to make an official report to another government official or agency concerning a natural disaster or accident that is likely to cause real property to have a diminished assessed valuation, that official, employee, or representative shall make a copy of the report available to the property owner on the owner's request and shall insure that the report contains the following notice:

NOTICE TO PROPERTY OWNER

If your property has been damaged you may be eligible for a decrease in the assessed valuation of your property, which could result in lower property taxes.

Contact your local assessor for more information.

- (c) Regardless of whether an official report concerning the natural disaster or accident is issued under subsection (b), the property owner may notify the township assessor of the property's destruction, uninhabitability, or unfitness for occupancy or normal use.

(Source: P.A. 87-818; 88-455; incorporates 88-221; 88-670, eff. 12-2-94.)

Sec. 9-195. Leasing of exempt property.

(a) Except as provided in Sections 15-35, 15-55, 15-60, 15-100, 15-103, and 15-185, when property which is exempt from taxation is leased to another whose property is not exempt, and the leasing of which does not make the property taxable, the leasehold estate and the appurtenances shall be listed as the property of the lessee thereof, or his or her assignee. Taxes on that property shall be collected in the same manner as on property that is not exempt, and the lessee shall be liable for those taxes. However, no tax lien shall attach to the exempt real estate. The changes made by this amendatory Act of 1997 and by this amendatory Act of the 91st General Assembly are declaratory of existing law and shall not be construed as a new enactment. The changes made by Public Acts 88-221 and 88-420 that are incorporated into this Section by this amendatory Act of 1993 are declarative of existing law and are not a new enactment.

(b) The provisions of this Section regarding taxation of leasehold interests in exempt property do not apply to any leasehold interest created pursuant to any transaction described in subsection (e) of Section 15-35, subsection (c-5) of Section 15-60, subsection (b) of Section 15-100, Section 15-103, or Section 15-185.

(Source: P.A. 92-844, eff. 8-23-02; 92-846, eff. 8-23-02; 93-19, eff. 6-20-03.)

Sec. 9-200. Previously exempt property.

Property that is purchased, granted, taken or otherwise transferred from a use exempt from taxation under this Code to a use not so exempt shall be subject to taxation from the date of change of use, purchase or conveyance. In those cases the county collector may issue a tax bill to the person holding title to the property for that part of the year during which it was not exempt, and may accept payment of the bill as full and final settlement of tax liability for that year. (Source: P.A. 86-1481; 88-455.)

Sec. 9-205. Equalization.

When deemed necessary to equalize assessments between or within townships or between classes of property, or when deemed necessary to raise or lower assessments within a county or any part thereof to the level prescribed by law, changes in individual assessments may be made by a township assessor or chief county assessment officer, under Section 9-75, by application of a percentage increase or decrease to each assessment. (Source: P.A. 81-1034; 88-455.)

Sec. 9-210. Equalization by chief county assessment officer; counties of less than 3,000,000.

The chief county assessment officer in a county with less than 3,000,000 inhabitants shall act as an equalizing authority for each county in which he or she serves. The officer shall examine the assessments in the county and shall equalize the assessments by increasing or reducing the entire assessment of property in the county or any area therein or of any class of property, so that the assessments will be at 33 1/3% of fair cash value. The equalization process and analysis described in this Section shall apply to all property except farm and coal properties assessed under Sections 10-110 through 10-140 and 10-170 through 10-200.

For each township or assessment district in the county, the supervisor of assessments shall annually determine the percentage relationship between the estimated 33 1/3% of the fair cash value of the property and the assessed valuations at which the property is listed for each township, multi-township or assessment district. To make this analysis, he or she shall use property transfers, property appraisals, and other means as he or she deems proper and reasonable.

With the ratio determined for each township or assessment district, the supervisor of assessments shall then determine the percentage to be added to or deducted from the aggregate assessments in each township or assessment district, other than property assessed under Sections 10-110 through 10-140 and 10-170 through 10-200, in order to produce a ratio of assessed value to fair cash value of 33 1/3%. That percentage shall be issued as an equalization factor for each township or assessment district within each county served by the chief county assessment officer. The assessment officer shall then change the assessment of each parcel of property by application of the equalization factor. (Source: P.A. 88-455; 88-670, eff. 12-2-94.)

Sec. 9-215. General assessment years; counties of less than 3,000,000.

Except as provided in Sections 9-220 and 9-225, in counties having the township form of government and with less than 3,000,000 inhabitants, the general assessment years shall be 1995 and every fourth year thereafter. In counties having the commission form of government and less than 3,000,000 inhabitants, the general assessment years shall be 1994 and every fourth year thereafter. (Source: P.A. 86-1481; 87-1189; 88-455.)

Sec. 9-220. Division into assessment districts; assessment years; counties of 3,000,000 or more.

(a) Notwithstanding any other provision in this Code to the contrary, until January 1, 1996, the county board of a county with 3,000,000 or more inhabitants may by resolution divide the county into any number of assessment districts. If the county is organized into townships, the assessment districts shall follow township lines. The assessment districts shall divide, as near as practicable, the work of assessing the property in the county into equal parts but neither the area nor the number of parcels need be equal in the assessment districts. The resolution shall number the assessment districts and provide for a general reassessment of each district at regular intervals determined by the county board.

(b) Beginning January 1, 1996, in counties with 3,000,000 or more inhabitants, assessment districts shall be subject to general reassessment according to the following schedule:

(1) The first assessment district shall be subject to general reassessment in 1997 and every 3 years thereafter.

(2) The second assessment district shall be subject to general reassessment in 1998 and every 3 years thereafter.

(3) The third assessment district shall be subject to general reassessment in 1996 and every 3 years thereafter.

The boundaries of the 3 assessment districts are as follows: (i) the first assessment district shall be that portion of the county located within the boundaries of a municipality with 1,000,000 or more inhabitants, (ii) the second assessment district shall be that portion of the county that lies north of State Route 64 (North Avenue) and outside the boundaries of a municipality with 1,000,000 or more inhabitants, and (iii) the third assessment district shall be that portion of the county that lies south of State Route 64 (North Avenue) and outside the boundaries of a municipality with 1,000,000 or more inhabitants. (Source: P.A. 88-455; 89-126, eff. 7-11-95.)

Sec. 9-225. Division of county into four assessment districts.

Resolutions of any county board dividing the county into four assessment districts, if adopted before January 1, 1990, shall remain valid thereafter unless and until repealed by the county board.

The county board of any county may, by resolution adopted after January 1, 1992, divide the county into 4 assessment districts. The county clerk shall forward a copy of the resolution to the Department. The assessment districts shall follow township lines if the county is organized into townships, and shall divide, as near as may

be, the work of assessing the property in the county into 4 equal parts. Neither the area nor the number of parcels of property need be equal in the 4 assessment districts. The resolution shall number the assessment districts 1 to 4 inclusive. The general assessment years for assessment district number 1 shall be 1992 and every fourth year thereafter; for assessment district number 2, the general assessment years shall be 1993 and every fourth year thereafter; for assessment district number 3, the general assessment years shall be 1994 and every fourth year thereafter; and for assessment district number 4, the general assessment years shall be 1995 and every fourth year thereafter. However, the general assessments shall not include property constituting a farm which is assessed under Sections 10-110 through 10-140. The county board of any county divided into assessment districts under this paragraph may provide by resolution for the assessment of the entire county in the general assessment year provided by law for that county and for the dissolution of the assessment district after the first such assessment. (Source: P.A. 86-1481; 87-1189; 88-455.)

Sec. 9-230. Return of township or multi-township assessment books.

(a) The township or multi-township assessors in counties with less than 600,000 inhabitants, based on the 2000 federal decennial census, shall, on or before April 15 of the assessment year, return the assessment books or workbooks to the supervisor of assessments. The township or multi-township assessors in counties with 600,000 or more but no more than 700,000 inhabitants, based on the 2000 federal decennial census, shall, on or before October 15 of the assessment year, return the assessment books or workbooks to the supervisor of assessments. The township or multi-township assessors in counties with less than 3,000,000 inhabitants, but more than 700,000 inhabitants, based on the 2000 federal decennial census, shall, on or before November 15 of the assessment year, return the assessment books or workbooks to the supervisor of assessments. If a township or multi-township assessor in a county with less than 3,000,000 inhabitants, but more than 600,000 inhabitants, based on the 2000 federal decennial census, does not return the assessment books or work books within the required time, the supervisor of assessments may take possession of the books and complete the assessments pursuant to law. Each of the books shall be verified by affidavit by the assessor substantially as follows:

)ss.

County of)

I do solemnly swear that the book or books in number, to which this affidavit is attached, contains a complete list of all of the property in the township or multi-township or assessment district herein described subject to taxation for the year so far as I have been able to ascertain, and that the assessed value set down in the proper column opposite the descriptions of property is a just and equal assessment of the property according to law.

Dated

(b) If the supervisor of assessments determines that the township or multi-township assessor has not completed the assessments as required by law before returning the assessment books under this Section, the county board may submit a bill to the township board of trustees for the reasonable costs incurred by the supervisor of assessments in completing the assessments. The moneys collected under this subsection may be used by the supervisor of assessments only for the purpose of recouping costs incurred in completing the assessments.

(Source: P.A. 93-761, eff. 1-1-05; 94-417, eff. 8-2-05.)

Sec. 9-235. Failure to complete assessments.

If the board of review, in any county under township organization with less than 3,000,000 inhabitants, fails to complete its work for the assessment year by the next January 1, the supervisor of assessments shall issue work books to the township assessors until the board of review completes its work. (Source: P.A. 85-1253; 88-455.)

Sec. 9-240. Assessment book totals.

The assessor and chief county assessment officer shall add up and note the aggregate of each column in the assessment books; and shall also add in each book, under proper headings, a tabular statement, showing the footings of the several columns upon each page; and shall add up and set down the total of each column. When the assessor or chief county assessment officer returns several assessment books, he or she shall, in addition to this tabular statement, return a similar statement showing the totals of all the books. (Source: P.A. 83-121; 88-455.)

Sec. 9-245. Return of books to board of review; counties of less than 3,000,000.

In counties with less than 3,000,000 inhabitants, the chief county assessment officer shall on or before the third Monday in June of the assessment year, return the assessment books to the board of review verified by affidavit, substantially in the following form:

State of Illinois)
)ss.
 County)

I,....., chief county assessment officer do solemnly swear that this book contains a correct and full list of all the property subject to taxation in, so far as I have been able to ascertain the same; and that the assessed value set down in the column opposite the descriptions of property is a just and equitable assessment under the law, to the best of my knowledge and belief, and that the footings of the columns and the accompanying tabular statement, are correct to the best of my knowledge and belief.

Dated

(Source: P.A. 83-121; 88-455.)

Sec. 9-250. Abstract of assessment by county clerk.

Annually, upon receipt of the assessment books from the board of review or board of appeals, each county clerk shall make out and, within 30 days, transmit to the Department, on forms provided or approved by the Department, an abstract of the assessment of property. The values to be given in the abstracts shall be the assessed valuations. (Source: Laws 1943, vol. 1, p. 1136; P.A. 88-455.)

Sec. 9-255. Statement of incomplete assessments.

In case of the failure of any assessor to certify the assessment within the time specified in this Act, each county clerk shall transmit to the Department a statement of the assessment in all the townships or districts from which returns have been received, together with a statement of the amount of taxable property assessed in the defaulting townships or districts for the previous year. (Source: Laws 1943, vol. 1, p. 1136; P.A. 88-455.)

Division 5. Omitted property

Sec. 9-260. Assessment of omitted property; counties of 3,000,000 or more.

(a) After signing the affidavit, the county assessor shall have power, when directed by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter), or on his or her own initiative, to assess properties which may have been omitted from assessments for the current year or during any year or years for which the property was liable to be taxed, and for which the tax has not been paid, but only on notice and an opportunity to be heard in the manner and form required by law, and shall enter the assessments upon the assessment books. No charge for tax of previous years shall be made against any property if (a) the property was last assessed as unimproved, (b) the owner of such property gave notice of subsequent improvements and requested a reassessment as required by Section 9-180, and (c) reassessment of the property was not made within the 16 month period immediately following the receipt of that notice.

(b) Any taxes based on the omitted assessment of a property pursuant to Sections 9-260 through 9-270 shall be prepared and mailed at the same time as the estimated first installment property tax bill for the preceding year (as described in Section 21-30) is prepared and mailed. The omitted assessment tax bill is not due until the date on which the second installment property tax bill for the preceding year becomes due. The omitted assessment tax bill shall be deemed delinquent and shall bear interest beginning on the day after the due date of the second installment (as described in Section 21-25). Any taxes for omitted assessments deemed delinquent after the due date of the second installment tax bill shall bear interest at the rate of 1.5% per month or portion thereof until paid or forfeited (as described in Section 21-25).

(c) The assessor shall have no power to change the assessment or alter the assessment books in any other manner or for any other purpose so as to change or affect the taxes in that year, except as ordered by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter). The county assessor shall make all changes and corrections ordered by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter). The county assessor may for the purpose of revision by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter) certify the assess-

ment books for any town or taxing district after or when such books are completed.

(Source: P.A. 93-560, eff. 8-20-03.)

Sec. 9-265. Omitted property; interest; change in exempt use or ownership.

After signing the affidavit, the county assessor shall have power, when directed by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter), or on his or her own initiative, to assess properties which may have been omitted from assessments for the current year or during any year or years for which the property was liable to be taxed, and for which the tax has not been paid, but only on notice and an opportunity to be heard in the manner and form required by law, and shall enter the assessments upon the assessment books. No charge for tax of previous years shall be made against any property if (a) the property was last assessed as unimproved, (b) the owner of such property gave notice of subsequent improvements and requested a reassessment as required by Section 9-180, and (c) reassessment of the property was not made within the 16 month period immediately following the receipt of that notice. The assessor shall have no power to change the assessment or alter the assessment books in any other manner or for any other purpose so as to change or affect the taxes in that year, except as ordered by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter). The county assessor shall make all changes and corrections ordered by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter). The county assessor may for the purpose of revision by the board of appeals (until the first Monday in December 1998 and the board of review beginning the first Monday in December 1998 and thereafter) certify the assessment books for any town or taxing district after or when such books are completed. (Source: P.A. 88-455; 89-126, eff. 7-11-95; 89-671, eff. 8-14-96.)

Sec. 9-270. Omitted property; limitations on assessment.

A charge for tax and interest for previous years, as provided in Sections 9-265 or 14-40, shall not be made against any property for years prior to the date of ownership of the person owning the property at the time the liability for the omitted tax was first ascertained. Ownership as used in this section shall be held to refer to bona fide legal and equitable titles or interests acquired for value and without notice of the tax, as may appear by deed, deed of trust, mortgage,

certificate of purchase or sale, or other form of contract. No charge for tax of previous years, as provided in Section 9-265, shall be made against any property if (a) the property was last assessed as unimproved, (b) the owner of the property gave notice of subsequent improvements and requested a reassessment as required by Section 9-180, and (c) reassessment of the property was not made within the 16 month period immediately following the receipt of that notice. The owner of property, if known, assessed under this and the preceding section shall be notified by the county assessor, board of review or Department, as the case may require. (Source: P.A. 86-359; 88-455.)

Article 25. Penalties

Sec. 25-5. Delivery and receipt of collector's book before bond approved.

If any county clerk delivers the tax books into the hands of the county collector, or if any collector receives the books or collects any taxes before the collector's bond has been approved and filed, as required by this Code, the clerk and collector, and each of them, shall be liable to a penalty of not less than \$500, and all damages and costs, to be recovered in a civil action. The State's Attorney shall bring suit, in the name of the People of the State of Illinois. Nothing in this Section shall be construed as relieving the sureties of a collector from liabilities incurred under a bond not approved and filed as required by this Code. (Source: P.A. 76-2254; 88-455.)

Sec. 25-10. Failure of collector to obtain timely judgment or present list of errors.

If any collector, by his own neglect, fails to obtain judgment within the time prescribed by this Code, or fails to present his list of errors in assessment of property at the time required by this Code, he shall lose the benefit of any abatement to which he might have been entitled, and shall pay to the county the full amount charged against him, except that in the 10 years next following the completion of a general reassessment of property in any county with 3,000,000 or more inhabitants, the collector is under no duty to obtain judgment earlier than 30 days after taxes upon property have become delinquent and have begun to bear interest. (Source: P.A. 83-121; 88-455.)

Sec. 25-15. Knowing failure of local assessment officer to perform duties.

Any local assessment officer or other person whose duty it is to assess property for taxation or equalize any assessment, who refuses or knowingly or wilfully neglects any duty required of him by law, or who consents to or connives at any evasion of this Code whereby any property required to be assessed is unlawfully exempted in whole or in part, or the valuation thereof is set down at more or less than is required by law, is guilty of a Class A misdemeanor. He or she shall also be liable upon his bond to the party injured for all damages sustained by that party. He or she shall also be removed from office by the judge of the court before whom he or she is tried and convicted. (Source: P.A. 77-2236; 88-455.)

Sec. 25-20. Knowing failure of public officer to perform duties.

Every public officer who refuses to perform or knowingly neglects any duty enjoined upon him by this Code, or who consents or connives to evade its provisions, whereby any proceeding required by this Code shall be prevented or hindered, or whereby any property required to be listed for taxation is unlawfully exempted or the same be entered upon the assessment or collector's books at less than the value required by this Code, or the percentage as may be provided by a county ordinance adopted under Section 4 of Article IX of the Constitution of Illinois, shall, for every such offense, neglect or refusal, be liable, on the complaint of any person, for double the amount of the loss or damage caused thereby, to be recovered in a civil action in the name of the People of the State of Illinois in any court having jurisdiction, and may be removed from office at the discretion of the court. (Source: P.A. 80-247; 88-455.)

Sec. 25-25. Failure of officer to perform duties if no other penalty provided.

If any officer fails or neglects to perform any of the duties required of him by this Code, upon being required so to do by any person interested in the matter, and for the failure or neglect to perform that duty there is no other or specific penalty provided in this Code, he shall be liable to a fine of not less than \$10 nor more than \$500, to be recovered in a civil action in the circuit court of the proper county, and may be removed from office at the discretion of the court. Any officer who knowingly violates any of the provisions of this Code, for the violation of which there is no other specific penalty provided in this Code, shall be liable to a fine not less than \$10 nor more than \$1,000 to be recovered in a civil action in the name of the People of the State of Illinois, in any court having jurisdiction and may be

removed from office at the discretion of the court. Fines when recovered shall be paid into the county treasury. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 25-30. Failure of collector to attend tax sale.

If any county collector or designated deputy fails to attend any sale advertised under this Code, and offer property for sale as required by law, he or she shall be liable to pay the amount of taxes, special assessments and costs due on the advertised property. The county collector may afterwards advertise and sell the delinquent property to reimburse himself or herself for the amount advanced by him or her, but at the sale no property shall be forfeited to the State. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 25-35. Failure of county clerk to attend tax sale or keep required records.

If any county clerk or designated deputy fails to attend any tax sale, or to make and keep the record, as required by this Code, he or she shall forfeit and pay the sum of \$500, and shall be liable to indictment for that failure. Upon conviction he or she shall be removed from office. The sum shall be sued for in civil action, in the name of the People of the State of Illinois, and when recovered shall be paid into the county treasury. (Source: Laws 1939, p. 886; P.A. 88-455.)

Sec. 25-40. Fraudulent return or schedule.

Any person who, with intent to defeat or evade the law in relation to the assessment of property, delivers or discloses to any assessor or deputy assessor a false or fraudulent list, return or schedule of his or her property not exempted by law from taxation, is guilty of a Class A misdemeanor. (Source: P.A. 77-2236; 88-455.)

Sec. 25-45. Duty of state's attorney to prosecute.

The State's Attorney of each county shall prosecute all violators of this Code. They shall receive as fees the sum of \$20 in counties with less than 3,000,000 inhabitants and \$40 in counties with 3,000,000 or more inhabitants for each conviction, to be taxed as costs, and 10% of all fines collected. The residue of all fines collected under this Code shall be paid into the county treasury for use of the county. (Source: P.A. 87-669; 88-455.)

Summary

The statutory authority for township and multi-township assessors is the **Property Tax Code**. The code is Act 200 in Chapter 35 of the Illinois Compiled Statutes (35 ILCS 200).

Under **Section 2-45** of the code, assessors are required to meet pre-election and pre-appointment qualifications before filing nomination papers, participating as a candidate in any caucus, primary, or general election, or being appointed to the position.

Under Section 2-60, the township or multi-township district may either reappoint, make new appointments, or develop new contracts with a qualified person to do the assessments. The person contracted to do the assessing in the district must also meet the pre-election or preappointment educational requirements under Section 2-45, prior to entering into a contract with the assessment district.

Individuals in jurisdictions with higher EAVs are required to have a **CIAO designation** or one of the other designations approved by the department, as provided by the statutes. Individuals in jurisdictions with lower EAVs are required to complete the introductory course.

Township and multi-township assessors are responsible for the assessing of property within their respective jurisdictions. The duties of the assessor and the procedures for assessment of property are outlined in the Property Tax Code. There are also penalty provisions for assessors who fail to perform their duties in a responsible manner.

Unit 2

Review questions

- 1 Section _____ outlines the pre-election and pre-appointment requirements for township and multi-township assessors.
- 2 Section _____ provides for the revision of assessor qualifications.
- 3 The CIAO criteria requires an individual to complete _____ core courses and _____ of _____ electives.
- 4 Individuals in jurisdictions with a non-farm/non-mineral EAV of _____ or a commercial/industrial EAV of _____ are required to have a CIAO designation before running for office or being appointed to office.
- 5 Individuals in jurisdictions with more than \$10 million and less than \$25 million of non-farm/non-mineral EAV and less than \$1 million of commercial/industrial EAV who have previously held office will be required to have an approved _____ prior to running for office.

Unit 3

Using the Sales Comparison, or Market Approach, to Arrive at Value

This unit covers the three approaches to value: the sales comparison, or market approach; the cost approach; and the income approach, but concentrates on the sales comparison, or market approach.

The purpose of this unit is to provide a basic understanding of the appraisal process and how the sales comparison method can be used to determine market value.

Learning objectives

After completing the assigned readings, you should be able to

- identify the three approaches to value,
- understand the three types of depreciation,
- explain the formula for the sales comparison, or market approach,
- make the necessary market adjustments to the comparables, and
- select the property that is most comparable to the subject property.



Terms and concepts

Highest and best use

Principle of substitution

Sales comparison, or market approach

Appraisal theory

Principle of highest and best use

Before determining a property's market value, the property's highest and best use must first be determined. Property has its highest value at its highest and best use. **Highest and best use** is defined as "that use that will produce the highest net return to the land for a given period of time, within the limits of those uses which are economically feasible, probable, and legally permissible." The use must be legal, does not involve criminal activities, and is not contrary to local regulations such as zoning. The use should be probable and not speculative in nature, and should also be one for which there is a demand. The highest and best use will be a complimentary use, rather than one that is competitive.

A property's highest and best use is generally its current use. However, consider a single-family residential property in a commercially zoned area along a busy street. The highest and best use of this property could easily be a store or an office building. The use that would lead to the highest net return to the property would be the highest and best use.

Principle of substitution

The **principle of substitution** provides the basis of the three approaches to value and states that a buyer is not justified in paying more for a property than it would cost to acquire an equally desirable, substitute property. That is, the value of a property is established as the amount equally desirable and comparable properties are being bought and sold for in the market.

The three approaches to value

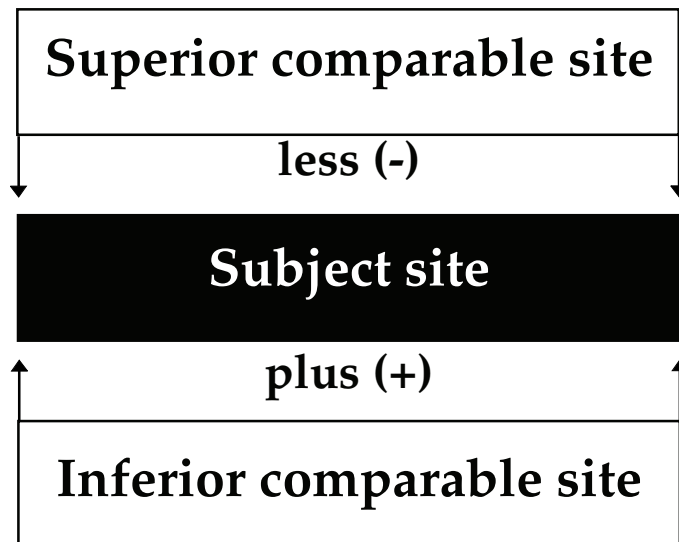
The three approaches to valuing real property are the sales comparison, or market approach; the cost approach; and the income approach.

- 1 **The sales comparison, or market approach** — compares properties that have recently sold to the subject property that is being appraised.
- 2 **The cost approach** — involves calculating the replacement cost of the building and subtracting depreciation.
- 3 **The income approach** — involves capitalizing the property's net earnings.

Sales comparison or market approach

The sales comparison, or market approach, to value arrives at a value for the subject property by comparing it to comparable properties that have sold. Consideration must be given to all the tangible and intangible factors influencing value, such as location, construction, age, physical features, condition, desirability, and usefulness.

The appraiser adjusts the comparable sales to the subject property. If the comparable property is superior in some manner to the subject property, the sales price of the comparable property is adjusted downward to the subject property. Likewise, if the comparable property is inferior in some manner to the subject property, the sales price of the comparable property is adjusted upward to the subject property.



**Example of
downward
adjustment**

For example: The subject property has 2 bedrooms. Comparable 1 has 3 bedrooms. We have determined from the market that an extra bedroom is worth + \$1,000. Consequently, we deduct \$1,000 from the comparable's sale price since 3 bedrooms is superior to the subject's 2 bedrooms.

**Example of
upward
adjustment**

Comparable 2 sold 2 years ago. We have determined that the market is increasing at a rate of 7 percent per year. Consequently, we increase the comparable's sale price by 14 percent.

The significance of this approach lies in its ability to produce estimates of value that directly reflect the opinions of buyers and sellers in the market.

Explanation of adjustments

Market data	The subject property is a 4-bedroom home on a crawl space in a good location. An analysis of all residential property sales within the neighborhood indicates a monthly increase of 0.5 percent.
Foundation	The subject is on a crawl space. Add \$1,000 for having a slab. Deduct \$2,500 for having a basement.
Plumbing	The subject has 1 bathroom (3 fixtures), 1 kitchen sink, and 1 water heater. Deduct \$500 for each extra plumbing fixture. (A half bath contains 2 fixtures.)
Bedrooms	The subject has 4 bedrooms. Add or deduct \$1,500 for each variance.
Garage	The subject has a 1-car garage. Properties that do not have a garage are considered to be 5 percent inferior, and properties that have a 2-car garage are considered to be 3 percent superior.
Central air	The subject does have central air conditioning. Add 2 percent for those properties that do not have central air conditioning.
Fireplace	The subject has 1 fireplace. Add or deduct \$1,200 for each fireplace in variance.
Landscaping	The subject is located on flat terrain with trees. Deduct 5 percent of the sale price for those properties located on rolling terrain. Add 5 percent of the sale price for those properties without trees.
Location	The subject property is in a good location. The appropriate adjustments have been determined through a study of recent sales and neighborhood analysis. These adjustments are shown on the following page.
Lot size	The subject's lot size is 9,500 square feet. Through study of vacant land sales, you have determined the appropriate adjustments as shown on the following page.

Note: Net adjustments will be in a lump sum dollar amount. A percent adjustment must be converted into a dollar amount.

Listed below are 5 sale properties that are comparable to the subject property. Make the indicated adjustments to the comparable properties and determine the adjusted sale prices for each of the comparable properties.

	Comparable 1	Comparable 2	Comparable 3	Comparable 4	Comparable 5
Address	1306 Archer	814 Adams	1414 State	6607 Healey	1209 Monroe
No. of months since sale	5	4	3	5	12
Foundation	Basement	Crawl	Basement	Basement	Slab
No. of plumbing fixtures	5	7	8	7	5
No. of bedrooms	3	4	4	3	3
Garage	2	1	2	1	1
Central air conditioning	No	Yes	Yes	No	Yes
No. of fireplaces	1	0	2	1	0
Landscaping adjustment	+ 5%	No adj.	No adj.	No adj.	- 5%
Location adjustment	+ 2%	No adj.	- 3%	+ 4%	No adj.
Lot size adjustment	+ 6%	No adj.	+ 2%	No adj.	No adj.
Sale price	\$54,000	\$63,000	\$69,500	\$62,800	\$59,700
Net adjustment					
No. of adjustments					
Adjusted sale price					

The first step in the sales comparison, or market approach, is to gather information on comparable properties that have sold. Once the information is gathered, analyze the properties to determine if any adjustments are needed. Based on this analysis, you should then determine the value of any adjustments to be made.

In this exercise, you will make adjustments to the comparable sales for various features that are different from those features found in the subject property. The features of the subject property are listed on Page 3-6. The instructions for making adjustments to the comparable properties are listed on the same page.

The 5 sales listed were selected as the most comparable to the subject property. The market data for each property is indicated above the dotted line.

The first comparable is 1306 Archer.

Time adjustment

Step 1:

The market has indicated an increase of 0.5% per month. The number of months, 5, is multiplied by the monthly increase amount of 0.5%. The time adjustment for comparable 1 is 2.5%

Step 2:

Every adjustment must be represented as a dollar amount for our net adjustment. Therefore 2.5 % must be converted into a dollar amount. The sales price of \$54,000 is multiplied by the time adjustment (2.5%). The market is increasing on a monthly basis and this adjustment will be a + \$1,350.

Basement adjustment

1306 Archer is built with a full basement, our subject property is built on a crawl space. A basement is considered to be superior to a crawl space, therefore an adjustment of - \$2,500 is necessary.

Plumbing adjustment

1306 Archer has 5 plumbing fixtures, our subject property has 5 fixtures. Since the number of fixtures is the same as the subject property, no adjustment is necessary.

Bedroom adjustment

1306 Archer has 3 bedrooms, our subject property has 4 bedrooms. 3 Bedrooms is considered to be inferior to 4 bedrooms, so an adjustment of + \$1,500 is necessary.

Garage adjustment

1306 Archer has a 2-car garage, our subject property has a 1-car garage. A 2-car garage is considered superior to a 1-car garage. Therefore, a - 3% adjustment is necessary. The sales price of \$54,000 is multiplied by the - 3%, resulting in an adjustment of - \$1,620.

Central air conditioning adjustment

1306 Archer does not have central air conditioning, our subject property has central air conditioning. A home without central air conditioning is considered to be inferior, so a + 2% adjustment is necessary. The sales price of \$54,000 is multiplied by 2%, resulting in an adjustment of \$1,080.

Fireplace adjustment

1306 Archer has 1 fireplace, our subject has 1 fireplace. Since both features are the same, no adjustment is necessary.

Landscaping adjustment

1306 Archer has inferior landscaping with an adjustment of + 5%. The sales price of \$54,000 is multiplied by the landscaping adjustment of + 5%, resulting in an adjustment of + \$2,700.

Location adjustment

1306 Archer is an inferior location. The sales price of \$54,000 is multiplied by the location adjustment of + 2%, resulting in an adjustment of + \$1,080.

Lot size adjustment

1306 Archer has a lot that is inferior in size. The size adjustment of + 6% is multiplied by the sales price of \$54,000, resulting in an adjustment of + \$3,240.

The final step is to determine what the net adjustment is for 1306 Archer. The net adjustment is found by computing a total for all of the individual adjustments. Once the net adjustment is determined, this is added to the old sales price, which produces an indication of value for the subject property.

The net adjustment for comparable 1 is + \$6,830. This is added to the sales price of \$54,000, resulting in an adjusted sales price of \$60,830.

Following the steps outlined above, finish completing the data on sales 2 through 5. Each of the 4 sales will have various adjustments that will be superior or inferior adjustments.

Write the adjusted sales price and the number of adjustments for each sale.

	Adj. sales price	No. of adj.
Comparable 1	_____	_____
Comparable 2	_____	_____
Comparable 3	_____	_____
Comparable 4	_____	_____
Comparable 5	_____	_____

After making all of the necessary adjustments and calculations, study the grid to determine the sale most comparable to the subject property. Once the comparable has been selected, values can be determined for the subject property.

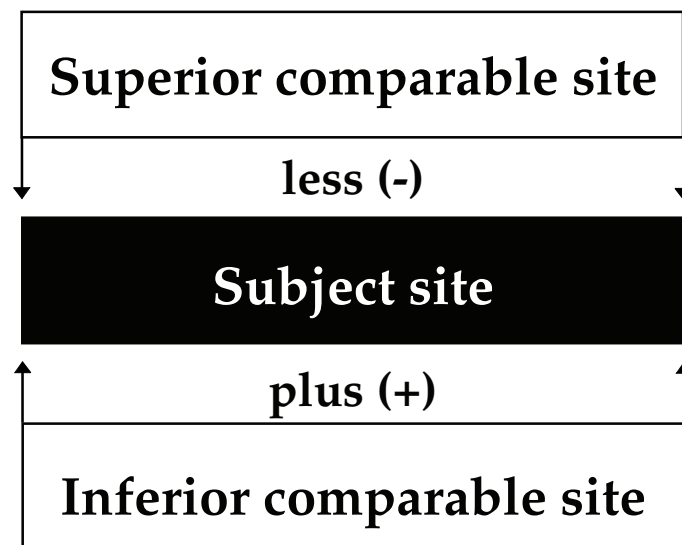
Looking at the least number of adjustments, which sale is most comparable to the subject property?

You should have selected sale 2 as the property most comparable to the subject property because it required the least number of adjustments. The net adjustment for sale 2 also happens to have the lowest dollar amount of the 5 comparables.

Summary

The sales comparison, or market approach, to value arrives at a value for the subject property by comparing it to comparable properties that have sold. Consideration must be given to all the tangible and intangible factors influencing value, such as location, construction, age, physical features, condition, desirability, and usefulness.

If the comparable property that has sold is superior in some manner to the subject property, the sales price of the comparable property is adjusted downward to the subject property. Likewise, if the comparable property is inferior in some manner to the subject property, the sales price of the comparable property is adjusted upward to the subject property.



Unit 3

Review Questions

- 1 T or F When using the sales comparison, or market approach, one never adjusts the subject property.
- 2 T or F Make a minus adjustment to your comparable property if it is inferior to your subject property.
- 3 T or F If the market is showing an annual increase of 3 percent, a sale occurring 2 years ago would have a minus adjustment of 6 percent.
- 4 T or F Three to five sales are recommended when using the sales comparison, or market approach, to value property.
- 5 T or F The property most comparable to the subject is the comparable with the least number of adjustments.

Unit 4

Using the Income Approach to Arrive at Value

This unit covers the ways in which the IRV formula is used to calculate the income of a property, the capitalization rate for a property, and the market value for a property.

The purpose of this unit is to provide a basic understanding of how the IRV formula can be utilized in the assessment process of income-producing properties.

Learning objectives

After completing the assigned readings, you should be able to

- determine the capitalization rate for a property when given the net income and the value,
- determine the value for a property when given the appropriate capitalization rate and income of a property,
- determine the income for a property when given the appropriate capitalization rate and value for a property,
- determine the potential gross income (PGI) for the subject property,
- determine the vacancy and collection losses for a property when given the market standard percentage,
- determine the effective gross income,
- determine allowable expenses,
- determine the net income, and
- determine the value of the property when given the applicable capitalization rate.



Terms and concepts

IRV Formula
Building capitalization rate
Land capitalization rate
Net income
Market value
Potential gross income (PGI)
Vacancy and collection losses
Effective gross income
Allowable expenses

The income approach

Property, such as parking lots, apartments, and office buildings, are often valued on the basis of the net income these properties produce for their owners. The **income approach** has its widest application in the appraisal of income-producing property. Commercial property is universally bought and sold on its ability to generate and maintain a stream of income for its owner. The value of such property is a measure of the amount, quality, and durability of the future net income the property can be expected to return to its investor.

The justified price paid for income-producing property is no more than the amount of investment required to produce a comparably desirable return. In addition, since the market can be analyzed to determine the net return actually anticipated by investors, it follows that the value of income-producing property can be derived from the income the property is capable of producing.

The process for converting the net income produced by property into an indication of its value is called **capitalization**. Capitalization is accomplished by dividing the net income of the property (I) by the capitalization rate (R). The result is an estimate of market value (V) of the property.

Market value (V) = net income (I) ÷ capitalization rate (R)

Any one of the factors of the formula can be determined if the other two factors are known.

In the formula
$$\frac{I}{R \times V}$$

“I” refers to the net income.

To arrive at the net income, use the following formula:

Potential gross income (PGI)	
- Vacancy and collection losses	
+ Miscellaneous income	
<hr/>	
Effective gross income (EGI)	
- Allowable expenses	
- Reserves for replacements (RR)	
<hr/>	
Net income (NI)	

The **potential gross income (PGI)** is the economic rent for a property at 100 percent occupancy. When estimating the PGI, it is important to base it on economic, or market rent, which may not be the same as contract rent. Economic or market rent is rent based on market standards, or the rent of similar properties in the area. Contract rent is the rent the property is actually receiving, based on a lease or other agreement.

It is highly unlikely that a property will be rented to 100 percent capacity at all times, so a deduction for “**vacancy losses**” is allowed. The amount of the deduction is based on market standards, or the vacancy rate typical for the area. Deductions are also allowed for “**collection losses**.” Collection losses are losses that result from tenants’ failure to pay rent. These losses are also based on market standards. The amounts deducted will be a percent of the PGI.

The **effective gross income (EGI)** is calculated by estimating the PGI, subtracting the appropriate amounts for vacancy and collection losses, and adding any miscellaneous income.

From the EGI, the allowable expenses and reserves for replacements are subtracted to arrive at the **net income (NI)**.

Allowable expenses are the expenses necessary for the operation of the business to keep it competitive with other properties in the area. Some examples of allowable expenses are salaries, utilities, management, insurance, supplies, materials, repairs and maintenance.

For assessment purposes, property taxes and mortgage interest are not allowable expenses. They are taken into consideration in the capitalization rate. Other items not considered allowable expenses are income taxes, depreciation, capital improvements, and the owner's business expenses that are not necessary for maintaining the rent produced by the property.

The final deduction is for **reserves for replacements**. The parts of a structure that must be replaced before the building reaches the end of its economic life have an annual expense deduction. Examples of items for this category are carpeting, floor coverings, roofing, appliances, heating, and air-conditioning.

"R" refers to the capitalization rate that consists of percentages for the return on the investment to the land and buildings (interest rate), a return of the investment to the buildings (recapture), plus an effective tax rate. When dealing with capitalization rates, there is either a land capitalization rate or a building capitalization rate.

Land capitalization rates are comprised of

- an effective tax rate, and
- a discount rate.

Since land does not depreciate, there is no recapture rate.

Building capitalization rates are comprised of

- a recapture rate,
- an effective tax rate, and
- a discount rate.

"V" refers to market value.

Selecting the proper capitalization rate and accurately estimating a realistic potential gross income, along with applicable operating expenses, are essential to the capitalization process.

$$\frac{I}{R \times V}$$

The IRV formula can be used to determine any one of the three factors. If you cover up the letter representing the component you are trying to determine, the formula for determining the value of that component is left.

$$\frac{\bullet}{R \times V}$$

To find the income of a property, cover up the "I" in the formula so you are left with $R \times V$.

Multiply the appropriate capitalization rate "R" by the value "V."

$$\frac{I}{\bullet \times V}$$

If you know the net income of a property and the value, to find the appropriate capitalization rate, cover up the "R" in the formula so you are left with $\frac{I}{V}$.

Divide the net income "I" by the value "V."

$$\frac{I}{R \times \bullet}$$

To determine the value of the property cover up the "V" in the formula so you are left with $\frac{I}{R}$.

Divide the net income "I" by the capitalization rate "R."

It can readily be seen that any one of the factors of the IRV formula can be determined if the other two factors are known.

**Example of
determining
a value**

An apartment building has 15 units that rent for \$500 per month. The allowable expenses are \$50 per unit, per month. The appropriate capitalization rate is 10.25% . What is the value of the building?

In order to arrive at a value, you need the net income and the appropriate capitalization rate.

- 1 Determine the potential gross income.
 $15 \text{ (units)} \times \$500 \times 12 \text{ (months)} = \$90,000$
- 2 Determine the annual allowable expenses.
 $15 \text{ (units)} \times \$50 \times 12 \text{ (months)} = \$9,000$
- 3 Determine the net income (PGI - allowable expenses).
 $\$90,000 - \$9,000 = \$81,000$
- 4 Apply the IRV formula

“V” = “I” divided by “R”

$$R = 10.25\% = .1025$$

$$I = \underline{\$81,000}$$

$$R = .1025 = \$790,244$$

The value of the property is \$790,244.

Exercise 4-1

IRV Formulas

Using the IRV formula, complete the following questions.

- 1 A parking lot recently sold for \$300,000. The parking lot has 100 parking spaces, each renting for \$25 per month. Allowable expenses are \$6,000 annually. What is the capitalization rate?

- 2 A parking lot provides its owner with a net annual income of \$27,400. The appropriate capitalization rate is 9.35%. What is the value of this parking lot?

- 3 The capitalization rate for an office building is 11.3%. This building recently sold for \$452,600. What is the net annual income?

- 4 An apartment building recently sold for \$375,700. The net annual income for this building \$53,428. What is the capitalization rate?

- 5 An apartment building has 20 units that rent for \$350 per month. The allowable expenses are \$25 per unit, per month. The capitalization rate is 12.54%. What is the value of this building?

- 6 A gravel parking lot recently sold for \$267,900. The discount rate is 9.25%, the recapture rate is 2.54%, and the effective tax rate is 2.00%. What is the parking lot's net annual income?

Summary

$$\frac{I}{R \times V}$$

I = Net income

R = Capitalization rate

V = Market value

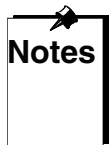
Potential gross income (PGI)

- Vacancy and collection losses
 - + Miscellaneous income
-

Effective gross income (EGI)

- Allowable expenses
 - Reserves for replacements (RR)
-

Net income (NI)



Unit 4

Review questions

- 1 What is the formula for the income approach?

- 2 A 100 space gravel parking lot rents for \$30 a month per space. The effective tax rate is 2.54%, the discount rate is 9.35%, and the recapture rate is 3.00%. What is the value of the parking lot?

- 3 A 2-story commercial building has a value of \$960,000. The building provides its owner with a monthly net income of \$6,000 per floor. This is well in line with similar properties. What is the building capitalization rate?

- 4 Land used as a gravel parking lot recently sold for \$270,000. The recapture rate is 3.25%, the discount rate is 8.15%, and the effective tax rate is 2.50%. What is the net income of this parking lot?

- 5 A 12 unit apartment building has (6) 1 bedroom units, (4) 2 bedroom units, and (2) 3 bedroom units. The 3 bedroom units rent for \$400 a month, the 2 bedroom units rent for \$350 a month, and the 1 bedroom units rent for \$275 a month. Similar properties in the area have recorded their monthly income to be at \$3500 a month. What is the potential gross income of this 12 unit apartment building?

Match these terms to the correct definition. Some terms may require more than one definition.

- | | |
|----------------------------------|--|
| ___ Potential gross income | A Recapture rate |
| ___ Land capitalization rate | B Mortgage interest |
| ___ Unallowable expenses | C Certain amount set aside over a period of time for wear and tear items to be replaced |
| ___ Building capitalization rate | D Effective tax rate |
| ___ Reserve for replacements | E Real estate taxes |
| | F Based on 100% occupancy using economic rent versus contract rent |
| | G Discount rate |

Unit 5

Using the Cost Approach to Arrive at Value

This unit covers the cost approach.

The purpose of this unit is to provide a basic understanding of the cost approach method.

Learning objectives

After completing the assigned readings, you should be able to

- understand the formula for the cost approach,
- identify the three types of depreciation and how they affect value,
- calculate a cost factor,
- conduct a cost factor study, and
- define a mass appraisal system.



Terms and concepts

Cost approach
Replacement cost new (RCN)
Physical depreciation
Functional depreciation
Economic depreciation
Cost factor
Cost factor study
Mass appraisal

Mass appraisal

Mass appraisal is the valuation of many properties as of January 1 of the assessment year, using standard procedures that provide uniformity.

The purpose of mass appraisal is to produce equitable and efficient appraisals of all property in a jurisdiction for ad valorem tax purposes. A mass appraisal system should incorporate all three approaches to value, but most systems are primarily based on the cost approach.

The cost approach

The market value of a property can be estimated using the **cost approach** by estimating the value of the land, adding the **replacement cost new (RCN)** of the improvements, and subtracting the depreciation from the improvements. An **improvement** is defined as any structure attached to, lying upon or within the land, that cannot be removed without physical stress.

The formula for the cost approach is

Market value = land value + (RCN - depreciation)

The **land value** is usually estimated by using the sales comparison, or market approach, to value. This approach is applied by comparing the subject site with sales of comparable sites that are vacant.

The RCN is the current cost of constructing improvements having utility equal to the utility of the subject improvements. It may or may not be the cost of reproducing a replica of the subject improvement. The distinction between the two is that, replacement cost refers to a substitute property of equal utility and reproduction cost refers to an exact replica property. In a particular situation, the two concepts may be interchangeable, but not necessarily so. Both RCN and reproduction cost have their application in the cost approach to value. The differences are reconciled in the application of depreciation allowances. The RCN includes the total cost of construction incurred by the builder.

There are several acceptable methods for establishing the replacement cost new of a structure. However, only the two more popular methods are discussed: the component-in-place method and the square foot method. Both of these methods can be used to develop a cost manual for a specific geographic area.

The component-in-place method is used by builders or contractors because it is very accurate. This method combines the direct and indirect costs of labor, material, and overhead for each unit in place for a portion or area of the structure. All these units are then added together to arrive at the total cost for the structure.

The square foot method is another widely used method for calculating the RCN. This method is based on the floor area of the structure and generally is used for residential buildings.

Replacement cost represents the upper limit of value of a structure. The difference between RCN and the present value is **depreciation**, the loss of value from all causes. The third and final step in completing the cost approach is to estimate the amount of depreciation.

Three types of depreciation

Three types of depreciation exist:

- 1 **physical depreciation**
- 2 **functional obsolescence**
- 3 **economic obsolescence**

Within the three types of depreciation are two depreciation conditions: deterioration and obsolescence. Deterioration occurs as the property declines in quality or condition. Obsolescence occurs as the property goes out of use or becomes obsolete.

Depreciation can be either curable or incurable. Depreciation is curable when the cost to cure will add to the market value of the structure. It is incurable when the cost to cure is greater than the increase in the market value of the structure.

Physical depreciation is defined as the loss in value due to deterioration, *e.g.*, wear and tear, time, and the action of the elements. Physical depreciation begins while a building is under construction and continues until the life of the structure has ended. The physical life of a building is dependent on

- the degree of maintenance it receives,
- the type and quality of materials used in its construction, and
- the soundness of the methods of its builder.

Examples of the two types of physical depreciation, curable and incurable, are

- 1 Curable** — short-lived components, such as windows, doors, floor coverings, and roofs.
- 2 Incurable** — long-lived components, such as foundations, studs, and rafters.

Both **functional and economic obsolescence** are defined as the loss of value due to forces other than physical, that act upon a structure in such a way as to limit its economic life.

Functional obsolescence refers to obsolescence resulting from conditions within the property, such as imbalance in construction features or inadequate design or arrangement that lessen its usefulness or utility.

Examples of the two types of functional obsolescence, curable and incurable, are

- 1 Curable** — lack of air conditioning, lack of proper electrical wiring, low hanging pipes, and absence of proper ventilation.
- 2 Incurable** — extremely poor floor plan, very low or high ceilings.

Economic obsolescence refers to obsolescence caused by influences outside the property, such as physical, economic, social, and governmental changes that have an adverse effect upon the stability and quality of the neighborhood in general.

Examples of economic obsolescence, usually incurable are

- **Location** — change in traffic pattern and noise and air pollution.
- **Economic** — high interest rates and business closings.
- **Government** — zoning changes, poor services, and high tax rate.

The significance of the cost approach lies in its extent of application. It is the one approach that can be used on all types of construction. The widest applications are in mass appraisal and the appraisal of properties that lack adequate market and income data, which prevents the application of the other approaches to value.

The responsibility of the assessor

Simply stated, the job or responsibility of the assessor is to place an assessed value in his or her column of the assessment books for each of the properties in the jurisdiction.

There are four steps the assessor must complete for each property in the jurisdiction. The assessor must

- 1 **Discover** — Find and inventory all real property using tax maps and property index numbers; find new construction by observation, reviewing building permits, and other methods.
- 2 **List** — Describe the characteristics of land and improvements on property record cards, including measuring improvements.
- 3 **Value** — Estimate the value of all real property in the jurisdiction and ensure uniformity and equity in the methods used and the market values produced.
- 4 **Assess** — Apply an assessment level to these market values, arriving at an assessed value for each of the properties in the jurisdiction. Ensure that the assessed values reflect a uniform level of assessments, and that these assessed values are derived from current market values.

Unlike an independent appraiser, who has the time to carefully analyze the various approaches to value before arriving at an estimate of value for one property, the assessor must estimate values within a relatively short period of time. The assessor is a mass appraiser.

The IRPAM is designed for mass appraisal. The cost schedules discussed in Unit 6 are used to apply the cost approach to value in a mass appraisal system. It is unreasonable to expect that every building value obtained through the use of these schedules will be exact. However, it is expected that the value estimates produced be well within tolerable limits. The outcome of this system still depends greatly on the professional judgement of the assessor. This is especially true when the assessor must use factors that will adjust various values before arriving at the final value of the subject property. These factors are defined in the following unit. There are guidelines that can be used to establish factors, but the assessor must continually rely on his or her skill and experience when assigning individual factors to each property.

Cost factor

A **cost factor** is designed to adjust the IRPAM RCN value to reflect the local cost of labor and material in other areas. The use of a cost factor may be necessary for any assessor whose jurisdiction is not similar to the central Illinois area. You will calculate a cost factor by performing a cost factor study for use with the class exercises in Unit 6.

Steps in calculating a cost factor.

- 1 Find arms-length sales of improved properties on which the improvements are **one year old or less**, which eliminates adjusting for depreciation.
- 2 Subtract the current land values from those sale prices to obtain the value of the improvement or building.

$$\text{Building value} = \text{sale price} - \text{land value}$$

- 3 Determine the RCN for each building.
- 4 Divide each building value by the corresponding RCN to obtain a cost factor for each sale.

$$\text{Cost factor} = \frac{\text{building value}}{\text{IRPAM RCN}}$$

- 5 Rank the factors.
- 6 Select the median, or middle, factor as the overall cost factor.
- 7 Apply the overall cost factor to the IRPAM RCN of all property within the jurisdiction.

The true RCN is equal to the IRPAM RCN multiplied by the cost factor.

$$\text{True RCN} = \text{IRPAM RCN} \times \text{cost factor}$$

Exercise 5-1

Cost factor study

The purpose of a cost factor study is to determine the factor to be used to adjust the values found in the IRPAM to reflect the labor and material costs found in your local area. Once this factor is determined, it is applied to all construction within the jurisdiction.

When computing a cost factor, it is important to remember to use only improvements that have an actual age of one year or less, eliminating the need to factor in depreciation.

A cost factor greater than 1.00 indicates that the IRPAM values are too low for the jurisdiction, so you must increase the RCN values. A cost factor less than 1.00 indicates that the IRPAM values are too high for the jurisdiction, so you must decrease the RCN values.

In this exercise, use the worksheet on the following pages to determine a cost factor for 15 sales. There are several formulas that you will need to use to determine the cost factor.

The first formula is used to determine the building value or building residual.

Step 1

Looking at Sale 1, the age column lists the improvement as new. To find the building residual, subtract the lot value of \$17,000 from the sale price of \$104,000. The remainder of \$87,000 is the building residual, or building value.

Building residual = sale price - lot value

$$\text{\$104,000} - \text{\$17,000} = \text{\$87,000}$$

Step 2

Divide the building residual of \$87,000 by the IRPAM RCN of \$82,300, which gives you a cost factor of 1.06.

Note: For this exercise round to 2 decimal places.

Cost factor = building residual ÷ IRPAM value

$$\text{\$87,000} \div \text{\$82,300} = 1.06$$

Looking at Sale 2, the age column lists the improvement as new. Use the formula for the building residual and subtract the lot value of \$17,000 from the sale price of \$97,700, which produces a building residual of \$80,700.

$$\$97,700 - \$17,000 = \$80,700$$

Divide the building residual of \$80,700 by the IRPAM RCN of \$78,400, which gives you a cost factor of 1.03.

$$\$80,700 \div \$78,400 = 1.03 \text{ cost factor}$$

Continue the computations for the remaining sales as outlined above.

Exercise 5-1 worksheet

Cost factor study

Sale Number	Age	Sale Price	Lot Value	Building Residual	Manual Value	Cost Factor
1	N	\$104,000	\$17,000	\$87,000	\$82,300	1.06
2	N	97,700	17,000	_____	78,400	_____
3	N	67,800	10,500	57,300	54,500	1.05
4	N	62,900	8,000	_____	51,800	_____
5	N	85,600	15,500	70,100	63,700	1.10
6	N	89,200	16,000	_____	63,100	_____
7	N	80,300	16,000	64,300	61,200	1.05
8	N	88,300	16,500	_____	69,000	_____
9	30	53,500	8,000	45,500	47,900	.95
10	N	93,100	16,500	_____	72,100	_____
11	N	76,700	15,500	61,200	58,300	1.05
12	N	86,500	16,000	_____	66,500	_____
13	44	67,900	11,000	56,900	59,300	.96
14	N	92,700	16,000	_____	69,500	_____
15	12	72,400	11,000	61,400	60,200	1.02

Step 3

The last step is to select the median after ranking all the cost factors that meet the age criteria. The factors can be ranked from highest to lowest or from lowest to highest.

Note: If you have an odd number of factors, select the median or middle value as the cost factor for your jurisdiction. If the number of factors is even, add the two middle factors together, then divide the sum by two, and use the average as your cost factor.

The cost factor that is determined is applied to all construction within a jurisdiction.

Rank	
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____

Median = _____

Summary

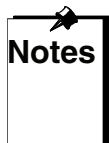
The market value of a property can be estimated using the **cost approach** by estimating the value of the land, adding the **replacement cost new (RCN)** of the improvements, and subtracting the depreciation from the improvements.

Replacement cost represents the upper limit of value of a structure. The difference between RCN and the present value is **depreciation**, the loss of value from all causes.

There are three types of depreciation that exist: **physical depreciation**, **functional obsolescence**, and **economic obsolescence**.

The **IRPAM** is designed for mass appraisal.

A cost factor is designed to adjust the IRPAM **replacement cost new (RCN)** value to reflect the local cost of labor and materials.



Unit 5

Review questions

- 1 What are the three types of depreciation? Place a ✓ next to the one that is generally incurable.

_____	_____
_____	_____
_____	_____

- 2 What is the purpose of a cost factor?

- 3 What is a mass appraisal system?

Unit 6

Mass Appraisal and Residential Square Foot Schedules

This unit covers the mass appraisal system and the various factors used to adapt a mass appraisal system to local jurisdictions. It also covers the residential square foot schedules in the IRPAM.

The purpose of this unit is to provide a basic understanding of a mass appraisal system and its use. In addition, the unit explains the use of the schedules to value property using the cost approach.

Learning objectives

After completing the assigned readings, you should be able to

- define a mass appraisal system,
- calculate a cost factor,
- identify the various factors used to adjust the IRPAM,
- explain how the various factors are obtained and used,
- identify the three types of depreciation and how they affect value,
- identify the use of the IRPAM,
- identify property record cards (PRCs) 1 and 2,
- identify and use the various cost tables in the manual,
- arrive at a correct estimate of market value by using the residential square foot schedules, and
- understand and use a remaining economic life (REL) depreciation table.



Terms and concepts

Cost approach
Quality grade
Remaining economic life (REL)
Depreciation
Actual age
Effective age
CDU (condition, desirability, and utility) rating
Standard 5 plumbing fixtures
Property record card 1 (PRC-1)
Property record card 2 (PRC- 2)
Base price
Full value
Replacement cost new (RCN)

Factors used with the IRPAM

Cost factor

As discussed in Unit 5, a **cost factor** is designed to adjust the IRPAM RCN value to reflect the local cost of labor and material in other areas. The use of a cost factor may be necessary for any jurisdiction that is not similar to the central Illinois area.

Quality grade

The accuracy of an RCN obtained from the IRPAM is greatly affected by proper quality grading. A **quality grade** represents the quality of construction, workmanship, and materials used in a project. The quality of workmanship and materials can greatly affect the cost of construction and the value of the improvement.

The majority of improvements fall within a definite class of construction involving average quality of workmanship and materials. This type of construction is designated as grade “C” which carries a factor of 100 percent or 1.00. The cost tables in the IRPAM represent quality grade “C.” A different quality grade factor may be used if the subject property was not built using average quality materials and workmanship.

There are six basic quality grades in the IRPAM.

Grade	Quality	Factor
AA	Superior quality	225 percent
A	Excellent quality	150 percent
B	Good quality	122 percent
C	Average quality	100 percent
D	Cheap quality	82 percent
E	Very cheap quality	50 percent

Pluses and minuses, after the letter grade, can be used to fine tune these adjustments. For example, a “C+ 10” grade improvement would have a grade factor of 10 percent above “C,” or 110 percent.

A quality grade must be assigned to each improvement and should be established during construction if at all possible. Once a grade has been established, this grade remains throughout the life of the improvement, unless the improvement is gutted and remodeled, using materials and workmanship of a different quality grade.

It is important **not** to confuse quality and condition. Condition refers to the physical condition of the improvement. Condition changes due to depreciation, such as wear and tear, use, and abuse. Quality does not change. However, higher quality materials deteriorate more slowly than poorer quality materials, all other things being equal.

Design factor

Another factor that may be used to adjust a building’s RCN is the **design factor**. The cost schedules in the IRPAM are designed for use in determining RCN values for conventional, rectangular shaped structures of compact, efficient design. In recent years though, architectural designs have become more diverse. There is an increased cost associated with such structures due to the need for more material and more labor per square foot.

The following details should be considered in determining whether to use a design factor:

- Irregular foundation outline,
- Wide roof overhangs,
- An unusual amount of built-in features,
- A number of special features, such as costly paneling, expensive fireplace mantles, and large fireplace chimneys,
- The use of mixed materials in the interior and the exterior of a home,
- Glass houses, earth homes, vacation homes, and
- Unusual architectural designs.

The design factor is handled in the same manner as a quality grade factor; it is assigned to individual homes and should remain unchanged during the life of the structure.

To determine a design factor, the percentage increase or decrease in cost due to the design feature or features must be determined. These costs should be verified through the contractor. The original contractor can provide a certified construction cost value. Several opinions from local contractors are also beneficial in verifying costs.

A design factor can be determined by the formula

Contractor's costs

IRPAM RCN

Typically, a minus 13 percent to a plus 50 percent adjustment is made to the IRPAM RCN value when using a design factor. A design factor is more commonly used in quality grades "B," "A," and "AA" improvements, although it may be required for grade "C" construction.

Appraiser factor

Some jurisdictions may employ field appraisers to determine the quality grades of all buildings within that jurisdiction. Because quality grades are based on the judgement of one individual, it is possible that quality grades may be assigned that are consistently higher or lower than what other assessors or appraisers in that jurisdiction would have assigned to those buildings. In

order to maintain uniformity, an **appraiser factor** is required to bring those buildings, valued by that particular individual, more in line with the value of the rest of the buildings in the jurisdiction. This factor is applied to all the parcels listed by the individual assessor.

The appraiser factor is developed using a method similar to that used to obtain the cost factor. Additional information on this factor and other factors are available in the IRPAM.

Neighborhood factor

The neighborhood where the property is located has a direct effect on the value. The neighborhood of a property may be defined by a natural boundary formed by rivers, or political boundaries formed by zoning to protect the common use in an area. The neighborhood should be analyzed to determine if the area is in a stage of growth, stability, or decline in order to estimate the future use and value.

A review of the factors

The **quality grade** — Used to adjust the IRPAM RCN values to reflect the quality of materials and workmanship of the improvement. This grade remains unchanged during the lifetime of the structure.

Cost factor x design factor x neighborhood factor x appraiser factor — These factors are chain multiplied to arrive at one factor used to adjust the IRPAM RCN value to reflect a true RCN of the improvement.

REL/Depreciation

The final factor that is applied to all improvements is a **remaining economic life (REL)** factor. This factor is applied to the true RCN to arrive at a full market value, which now reflects the adjustment made for depreciation.

Depreciation is the loss in value due to a number of factors. Generally, depreciation is placed into three categories: physical; functional; and external or economic depreciation. All depreciating forces act concur-

rently, but not at the same rate. Within the IRPAM, the Commercial REL Depreciation Table is developed to adjust for the differing rates of depreciation.

Use of the Residential REL Depreciation Table

Schedule A — This schedule takes into account the **actual age** of the improvement, and what is referred to as the CDU rating of the improvement, to arrive at an **effective age**. This effective age is then used to find the remaining economic life factor, which is applied to the true RCN.

The **CDU rating** is assigned to each property by comparing that subject property’s physical condition “C,” desirability “D,” and utility “U” to other properties within the neighborhood, or within a jurisdiction if neighborhoods have not been established.

The CDU rating is the method for determining a rate of depreciation. The **condition** refers to physical depreciation, such as wear and tear and action of the elements that has taken place. The **desirability** refers to the economic or external depreciation, such as lack of appeal due to location, or some type of adverse influences outside the boundary lines of the property. The **utility** refers to functional obsolescence, such as inefficient and impractical arrangement of rooms and any superadequacy or inadequacy that may be present.

The CDU rating is broken down into five classifications.

E	Excellent	Superior condition
G	Good	Better than average condition
A	Average	Normal wear and tear for area
P	Poor	Definitely below average condition
U	Unsound	Excessively deteriorated condition

How to use the Residential REL Depreciation Table

Step 1

Locate the actual age of the improvement (based on year of construction) in the AGE column of Schedule A.

Step 2

Determine the CDU of the subject and locate it along the upper portion of Schedule A.

Step 3

Trace the age to its point of intersection with the CDU and find the effective age.

For example: a property that has an age of "10," with a CDU rating of "good," has an effective age of "3" in Schedule A.

Step 4

This effective age is then located on Schedule B in the column headed EFF. AGE. The percentage factor indicated in the right column of Schedule B is the REL factor. This factor is then applied to the true RCN, which depreciates the value to reflect full market value. REL is directly related to depreciation.

REL% + Dep% = 100%, or

100% - REL factor expressed as a percent = percent of depreciation.

The assessor must carefully review CDU ratings over time because the CDU rating of each property may change for a variety of reasons. Because each property is assigned an individual CDU rating, a change of one CDU may not require a change in the CDU ratings of other properties within the neighborhood.

Residential REL Table

Schedule A											Schedule B				
Age	Effective Age					Age	Effective Age					Eff. Age	REL	Eff. Age	REL
	E	G	A	P	U		E	G	A	P	U				
1	1	1	1	18	63	70	24	39	70	102	117	1	100	73	68
2	1	1	2	19	67	71	24	40	71	102	117	2	99	74	67
3	1	1	3	21	71	72	25	41	72	102	117	3	98	75	67
4	1	1	4	22	75	73	25	42	73	102	117	4	97	76	67
5	1	1	5	24	78	74	26	43	74	103	117	5	96	77	66
6	1	1	6	26	81	75	26	44	75	103	117	6	95	78	66
7	1	1	7	29	84	76	27	45	76	103	118	7	94	79	66
8	1	1	8	32	86	77	28	47	77	104	118	8	93	80	65
9	1	2	9	35	88	78	29	48	78	104	118	9	92	81	65
10	1	3	10	38	90	79	30	49	79	104	118	10	91	82	65
11	1	4	11	41	92	80	31	51	80	105	119	11	90	83	64
12	1	5	12	44	94	81	32	53	81	105	119	12	89	84	64
13	1	6	13	47	95	82	32	55	82	105	119	13	88	85	63
14	1	6	14	50	95	83	34	57	83	106	120	14	88	86	63
15	1	7	15	54	96	84	35	59	84	106	120	15	87	87	62
16	2	8	16	57	98	85	36	62	85	107	121	16	86	88	62
17	2	8	17	60	98	86	37	64	86	107	121	17	86	89	61
18	3	9	18	63	99	87	39	66	87	108	121	18	85	90	61
19	4	10	19	66	100	88	41	68	88	108	122	19	84	91	60
20	4	10	20	69	101	89	43	70	89	109	122	20	84	92	60
21	5	11	21	72	102	90	45	72	90	109	122	21	83	93	59
22	6	12	22	74	103	91	47	74	91	110	123	22	82	94	59
23	6	12	23	76	103	92	49	76	92	110	123	23	82	95	58
24	7	13	24	78	104	93	52	78	93	111	124	24	81	96	57
25	7	14	25	79	104	94	54	79	94	111	124	25	81	97	57
26	8	15	26	81	105	95	58	81	95	112	125	26	80	98	56
27	8	15	27	82	105	96	61	83	96	113	125	27	80	99	55
28	9	16	28	83	106	97	63	84	97	113	126	28	79	100	54
29	9	17	29	84	106	98	67	85	98	114	126	29	79	101	54
30	9	17	30	84	106	99	71	87	99	115	127	30	79	102	53
31	10	18	31	85	107	100	74	89	100	116	128	31	78	103	52
32	10	18	32	86	107	101	76	90	101	116	128	32	78	104	51
33	11	19	33	87	108	102	78	92	102	117	129	33	77	105	50
34	11	20	34	88	108	103	81	94	103	118	130	34	77	106	49
35	11	20	35	88	108	104	83	95	104	118	130	35	77	107	48
36	12	21	36	89	109	105	85	97	105	119	131	36	76	108	47
37	12	21	37	90	109	106	87	98	106	120	132	37	76	109	46
38	12	21	38	90	109	107	89	99	107	121	133	38	76	110	45
39	13	22	39	91	110	108	91	101	108	121	133	39	75	111	44
40	13	22	40	91	110	109	93	102	109	122	134	40	75	112	43
41	14	23	41	92	110	110	95	103	110	123	135	41	75	113	42
42	14	23	42	92	110	111	97	104	111	124	136	42	75	114	41
43	15	24	43	93	111	112	98	105	112	125	137	43	74	115	40
44	15	24	44	93	111	113	99	106	113	126	138	44	74	116	39
45	15	25	45	94	111	114	101	107	114	126	138	45	74	117	38
46	15	25	46	94	111	115	102	108	115	127	139	46	74	118	36
47	16	26	47	95	112	116	103	109	116	128	140	47	73	119	35
48	16	26	48	95	112	117	104	110	117	129	141	48	73	120	34
49	17	27	49	95	112	118	106	112	118	130	142	49	73	121	33
50	17	27	50	95	112	119	107	113	119	131	143	50	73	122	31
51	18	28	51	96	113	120	108	114	120	132	143	51	72	123	30
52	18	28	52	96	113	121	109	115	121	133	143	52	72	124	29
53	18	29	53	97	113	122	111	117	122	134	143	53	72	125	28
54	18	30	54	97	113	123	112	117	123	135	143	54	72	126	26
55	18	30	55	97	113	124	113	118	124	136	143	55	72	127	25
56	19	31	56	98	114	125	114	119	125	137	143	56	71	128	24
57	19	31	57	98	114	126	116	121	126	138	143	57	71	129	23
58	20	32	58	98	114	127	117	121	127	139	143	58	71	130	21
59	20	32	59	98	114	128	118	122	128	139	143	59	71	131	20
60	20	32	60	98	114	129	118	123	129	139	143	60	71	132	19
61	21	33	61	99	115	130	120	125	130	139	143	61	70	133	18
62	21	33	62	99	115	131	121	125	131	139	143	62	70	134	16
63	21	34	63	99	115	132	122	126	132	139	143	63	70	135	15
64	21	35	64	99	115	133	122	127	133	139	143	64	70	136	14
65	21	35	65	99	115	134	124	129	134	139	143	65	70	137	13
66	22	36	66	100	116	135	125	129	135	139	143	66	69	138	11
67	22	37	67	100	116	136	126	130	135	139	143	67	69	139	10
68	23	37	68	101	116	137	126	131	135	139	143	68	69	140	9
69	23	38	69	101	116	138	127	131	135	139	143	69	69	141	8
												70	68	142	7
												71	68	143	5
												72	68		
See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.															

Residential square foot schedules

The IRPAM is a mass appraisal system. The schedules in the IRPAM are based on construction costs in the central Illinois area. The values are also based on construction, using average quality materials and workmanship. As discussed earlier, there are various factors that can be applied to adjust the IRPAM to reflect the values in various jurisdictions.

For residential structures, the IRPAM includes base cost schedules for wood frame and masonry construction. When referencing a base cost schedule, it is important to use the appropriate schedule. The base cost schedules for both wood frame and masonry construction include normal construction features, such as foundation, basement and basement walls, exterior walls, floors, roof, interior finish, central heating, lighting, and average landscaping. They also include the standard five plumbing fixtures: bathroom toilet, basin, tub or shower, kitchen sink, and hot water heater. If you are dealing with construction features other than those included in the base cost schedules, you must make “plus” or “minus” adjustments to the base cost. The IRPAM includes various supplemental schedules to assist in valuing these variances that also indicate whether a plus or minus adjustment to the base price is required.

The residential schedules are used in conjunction with the residential **property record cards (PRCs)**. PRC-1 is used for valuing land, and the PRC-2, on the opposite side, is used for the computation of building values. The right column of the PRC-2 is used for computing the full value of the structure. This column is called the computation ladder.

Determine the base cost of the structure

Using the base cost schedule on the following page, determine the base cost of the structure. The base cost of the structure is based on the square footage of the ground floor only. The schedules include values for 1-story, 1 ½-story, split-level, 2-story, and 3-story structures. When referring to the schedules, use the square footage of the ground floor only, **not** the combined

square footage of all floors. Select the appropriate corresponding story height to determine the value. Looking at the base cost schedule, the left column represents the square foot area of the ground floor.

For example, if you have a 2-story frame structure with 1,000 square feet on each floor, find 1,000 square feet in the left column of the base cost schedule for wood frame construction (**not** 2,000 square feet which is the combined footage for both floors), and move to the appropriate column for a 2-story structure. The base cost of this structure, before adjustments, is \$104,650.

Residential Schedules

Base cost schedule — wood frame construction											
SFGA	Stories					SFGA	Stories				
	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.		1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	\$15,800	\$19,950	\$16,000	\$21,300	\$26,800	1,600	\$94,200	\$132,350	\$111,200	\$147,050	\$200,650
25	18,550	23,500	18,900	25,150	31,800	25	95,250	133,950	112,600	148,900	203,200
50	21,050	26,800	21,600	28,750	36,450	50	96,350	135,550	113,950	150,700	205,750
75	23,400	29,950	24,100	32,100	40,850	75	97,450	137,200	115,350	152,500	208,300
200	25,600	32,850	26,550	35,300	45,050	1,700	98,550	138,800	116,750	154,350	210,900
25	27,700	35,650	28,850	38,400	49,100	25	99,650	140,450	118,150	156,150	213,450
50	29,650	38,350	31,050	41,300	53,000	50	100,800	142,100	119,550	158,000	216,050
75	31,550	40,900	33,150	44,150	56,750	75	101,900	143,750	120,950	159,850	218,600
300	33,350	43,400	35,200	46,850	60,400	1,800	103,050	145,400	122,350	161,750	221,200
25	35,100	45,750	37,200	49,500	63,950	25	104,200	147,050	123,800	163,600	223,850
50	36,800	48,100	39,150	52,050	67,400	50	105,350	148,700	125,200	165,500	226,450
75	38,400	50,300	41,000	54,500	70,750	75	106,500	150,400	126,650	167,350	229,050
400	39,950	52,500	42,850	56,950	74,050	1,900	107,650	152,100	128,100	169,250	231,700
25	41,450	54,600	44,600	59,300	77,250	25	108,850	153,800	129,550	171,150	234,350
50	42,950	56,700	46,350	61,600	80,400	50	110,000	155,500	131,000	173,100	237,050
75	44,350	58,700	48,050	63,850	83,500	75	111,200	157,200	132,450	175,000	239,700
500	45,750	60,700	49,700	66,050	86,550	2,000	112,400	158,950	133,950	176,950	242,400
25	47,100	62,650	51,350	68,200	89,500	25	113,600	160,700	135,450	178,900	245,100
50	48,450	64,550	52,950	70,350	92,450	50	114,850	162,450	136,900	180,850	247,800
75	49,750	66,400	54,550	72,450	95,350	75	116,050	164,200	138,400	182,850	250,500
600	51,000	68,250	56,100	74,500	98,250	2,100	117,300	166,000	139,950	184,800	253,250
25	52,250	70,050	57,650	76,550	101,050	25	118,550	167,800	141,450	186,800	256,000
50	53,500	71,850	59,150	78,550	103,850	50	119,800	169,600	143,000	188,800	258,750
75	54,700	73,600	60,650	80,500	106,600	75	121,100	171,400	144,500	190,850	261,550
700	55,850	75,300	62,150	82,450	109,350	2,200	122,350	173,200	146,050	192,850	264,300
25	57,050	77,050	63,600	84,400	112,050	25	123,650	175,050	147,600	194,900	267,150
50	58,200	78,750	65,050	86,300	114,750	50	124,950	176,900	149,200	196,950	269,950
75	59,350	80,400	66,500	88,200	117,400	75	126,300	178,750	150,750	199,050	272,750
800	60,450	82,050	67,900	90,100	120,050	2,300	127,600	180,600	152,350	201,100	275,600
25	61,550	83,700	69,300	91,950	122,650	25	128,950	182,500	153,950	203,200	278,500
50	62,650	85,350	70,700	93,800	125,250	50	130,300	184,400	155,550	205,300	281,350
75	63,750	86,950	72,100	95,650	127,850	75	131,650	186,300	157,150	207,450	284,250
900	64,850	88,550	73,500	97,450	130,450	2,400	133,000	188,250	158,750	209,550	287,150
25	65,900	90,150	74,850	99,250	133,000	25	134,400	190,200	160,400	211,700	290,050
50	67,000	91,750	76,250	101,050	135,550	50	135,800	192,150	162,050	213,850	293,000
75	68,050	93,350	77,600	102,850	138,100	75	137,200	194,100	163,700	216,050	295,950
1,000	69,100	94,900	78,950	104,650	140,650	2,500	138,600	196,100	165,350	218,250	298,900
25	70,150	96,500	80,300	106,450	143,150	25	140,050	198,050	167,050	220,450	301,900
50	71,200	98,050	81,650	108,200	145,650	50	141,500	200,100	168,750	222,650	304,900
75	72,250	99,600	83,000	109,950	148,150	75	142,950	202,100	170,450	224,900	307,950
1,100	73,250	101,150	84,350	111,750	150,700	2,600	144,400	204,150	172,150	227,150	310,950
25	74,300	102,700	85,650	113,500	153,200	25	145,900	206,200	173,850	229,400	314,000
50	75,350	104,250	87,000	115,250	155,650	50	147,400	208,250	175,600	231,700	317,100
75	76,350	105,800	88,350	117,000	158,150	75	148,900	210,350	177,350	233,950	320,150
1,200	77,400	107,350	89,700	118,750	160,650	2,700	150,450	212,450	179,100	236,300	323,250
25	78,450	108,900	91,000	120,500	163,150	25	151,950	214,550	180,850	238,600	326,400
50	79,450	110,450	92,350	122,250	165,600	50	153,500	216,650	182,650	240,950	329,500
75	80,500	112,000	93,650	124,000	168,100	75	155,050	218,800	184,450	243,300	332,650
1,300	81,550	113,550	95,000	125,800	170,600	2,800	156,650	220,950	186,250	245,650	335,850
25	82,550	115,100	96,350	127,550	173,100	25	158,250	223,150	188,050	248,050	339,050
50	83,600	116,650	97,700	129,300	175,550	50	159,850	225,350	189,900	250,450	342,250
75	84,650	118,200	99,000	131,050	178,050	75	161,450	227,550	191,700	252,850	345,450
1,400	85,700	119,750	100,350	132,800	180,550	2,900	163,050	229,750	193,550	255,300	348,700
25	86,750	121,300	101,700	134,600	183,050	25	164,700	232,000	195,450	257,750	351,950
50	87,800	122,900	103,050	136,350	185,550	50	166,350	234,250	197,300	260,200	355,250
75	88,850	124,450	104,400	138,100	188,050	75	168,050	236,500	199,200	262,700	358,550
1,500	89,900	126,000	105,750	139,900	190,550	3,000	169,750	238,800	201,100	265,200	361,850
25	90,950	127,600	107,100	141,700	193,100	OVER	56.60/SF	79.60/SF	67.05/SF	88.40/SF	120.60/SF
50	92,050	129,200	108,450	143,450	195,600						
75	93,100	130,750	109,850	145,250	198,150						

Base price schedules include normal construction features, such as foundation, basement and basement walls, all exteriors walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.

Residential schedules

Schedule combining — frame/masonry (-)											
Frame						Masonry					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story	SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
100	\$10,550	\$10,650	\$10,650	\$10,750	\$10,950	100	\$11,900	\$12,050	\$12,050	\$12,200	\$12,400
200	11,350	11,550	11,500	11,700	12,000	200	12,900	13,150	13,100	13,400	13,800
300	11,950	12,200	12,150	12,400	12,900	300	13,700	14,000	13,950	14,350	14,900
400	12,450	12,800	12,750	13,050	13,650	400	14,350	14,750	14,700	15,150	15,850
500	12,900	13,350	13,250	13,600	14,350	500	14,900	15,400	15,350	15,850	16,700
600	13,300	13,800	13,700	14,150	14,950	600	15,400	16,000	15,950	16,500	17,500
700	13,700	14,250	14,150	14,600	15,550	700	15,900	16,550	16,500	17,150	18,250
800	14,050	14,650	14,600	15,100	16,150	800	16,350	17,100	17,000	17,700	19,000
900	14,400	15,050	15,000	15,500	16,700	900	16,800	17,600	17,500	18,250	19,650
1,000	14,700	15,450	15,350	15,950	17,200	1,000	17,200	18,100	18,000	18,800	20,350
1,100	15,000	15,800	15,750	16,350	17,700	1,100	17,550	18,550	18,450	19,300	21,000
1,200	15,300	16,150	16,100	16,750	18,200	1,200	17,950	19,000	18,900	19,800	21,600
1,300	15,600	16,550	16,450	17,150	18,700	1,300	18,300	19,450	19,300	20,300	22,250
1,400	15,900	16,900	16,800	17,550	19,200	1,400	18,700	19,900	19,750	20,750	22,850
1,500	16,200	17,250	17,150	17,950	19,700	1,500	19,050	20,300	20,200	21,250	23,500
1,600	16,450	17,550	17,500	18,300	20,200	1,600	19,400	20,750	20,600	21,700	24,100
1,700	16,750	17,900	17,850	18,700	20,650	1,700	19,750	21,200	21,050	22,200	24,700
1,800	17,050	18,250	18,200	19,100	21,150	1,800	20,100	21,600	21,450	22,700	25,300
1,900	17,300	18,600	18,550	19,450	21,650	1,900	20,450	22,050	21,850	23,150	25,950
2,000	17,600	18,950	18,900	19,850	22,150	2,000	20,850	22,450	22,300	23,650	26,550
2,100	17,900	19,300	19,250	20,250	22,650	2,100	21,200	22,900	22,700	24,150	27,150
2,200	18,150	19,650	19,600	20,650	23,150	2,200	21,550	23,350	23,150	24,600	27,800
2,300	18,450	20,000	19,950	21,050	23,650	2,300	21,900	23,800	23,600	25,100	28,450
2,400	18,750	20,400	20,300	21,450	24,150	2,400	22,300	24,250	24,050	25,600	29,050
2,500	19,050	20,750	20,650	21,850	24,700	2,500	22,650	24,700	24,450	26,150	29,700
2,600	19,400	21,100	21,050	22,250	25,200	2,600	23,050	25,150	24,900	26,650	30,350
2,700	19,700	21,500	21,400	22,700	25,750	2,700	23,450	25,600	25,400	27,200	31,050
2,800	20,000	21,900	21,800	23,100	26,300	2,800	23,800	26,100	25,850	27,700	31,700
2,900	20,350	22,250	22,150	23,550	26,850	2,900	24,200	26,550	26,300	28,250	32,400
3,000	20,650	22,650	22,550	24,000	27,400	3,000	24,600	27,050	26,800	28,800	33,100

Note: The **schedule combining** schedule for both frame and masonry construction is used to adjust the base price schedules for variances in story height. This schedule **will not** be used in this class.

Plumbing (±)		
Per fixture less than standard	Deduct	\$1,465
Per fixture greater than standard	Add	\$1,465

The base price includes the standard 5 **plumbing** fixtures: bathroom toilet, bathroom basin, tub or shower, kitchen sink, and hot water heater. If the structure has more than the standard 5 fixtures, add \$1,465 per fixture to the base cost. If you have less than the standard 5 fixtures, a deduction of \$1,465 per fixture should be made.

Quality grade refers to the quality of the material and workmanship. The IRPAM is based on **average** quality improvements. The quality grade for average is "C." If you have a quality other than average, you must apply the appropriate grade factor.

Quality	
Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

No heat (-)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$2,000	\$2,200	\$2,400	\$2,400	\$2,800
400	2,450	2,950	3,350	3,350	4,400
600	2,900	3,650	4,550	4,550	6,000
800	3,400	4,650	5,750	5,750	7,300
1,000	3,850	5,350	6,650	6,650	8,600
1,200	4,650	6,400	7,550	7,550	9,900
1,400	5,100	7,100	8,450	8,450	11,200
1,600	5,850	7,800	9,400	9,400	12,500
1,800	6,350	8,500	10,300	10,300	13,800
2,000	6,800	9,200	11,200	11,200	15,100
2,200	7,250	9,950	12,100	12,100	16,400
2,400	7,750	10,650	13,000	13,000	17,700
2,600	8,200	11,350	13,900	13,900	19,000
2,800	8,700	12,050	14,800	14,800	20,300
3,000	9,150	12,800	15,750	15,750	21,600

The base price schedule includes heat. If the structure is not heated, a minus adjustment must be made.

Central air conditioning is not included in the base price. If the structure is cooled by central air conditioning, a plus adjustment must be made.

Central air conditioning (+)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$ 2,050	\$ 2,050	\$ 2,050	\$ 2,050	\$ 2,050
400	2,050	2,050	2,050	2,050	2,200
600	2,050	2,200	2,200	2,200	2,650
800	2,050	2,350	2,350	2,650	3,200
1,000	2,200	2,650	2,650	2,800	4,250
1,200	2,200	2,800	2,800	3,200	5,250
1,400	2,350	2,950	2,950	4,250	5,600
1,600	2,650	4,250	4,250	4,250	6,000
1,800	2,650	4,250	4,250	5,250	7,200
2,000	2,800	5,250	5,250	5,400	8,400
2,200	3,200	5,600	5,600	5,750	8,650
2,400	3,200	5,600	5,600	6,000	9,000
2,600	3,200	5,750	5,750	6,450	11,000
2,800	4,250	6,000	6,000	7,200	11,450
3,000	4,250	6,000	6,000	8,400	12,600

Note: When using Schedule Combining with houses that have central air conditioning, subtract an additional \$1,600.

Fireplace (+)				
Quality	A	B	C	D
Fireplace & stack	\$6,805	\$4,620	\$3,090	\$2,100
2nd Fireplace on same stack	5,445	3,695	2,470	1,680

Note: 100% masonry fireplaces are B quality or better.

Fireplaces are not included in the base price. If the structure contains a fireplace, an adjustment must be made for the number of fireplaces and stacks. The amount of the adjustment would reflect the quality grade of the material used in the construction.

If the structure has a **finished basement**, an addition to the base price must be made. The amount of the addition depends on whether the basement was finished into a recreation room or finished into living quarters. The amount of the adjustment would also reflect the quality grade of the materials used.

Finished basement (+) Per SF of finished floor area				
Quality	A	B	C	D
Recreation room	\$ 7.70	\$ 6.25	\$ 5.15	\$ 4.20
Living quarters	20.30	16.55	13.55	11.10

Occasionally, structures will feature brick, stone, or artificial stone as trim accenting a portion of the structure. If there is **partial masonry trim** on the structure, an addition to the base price must be made. The amount of the adjustment would reflect the type of material used and the quality grade of the material.

Partial masonry trim (+) Per SF of surface area				
Quality	A	B	C	D
Brick	\$17.05	\$ 14.80	\$ 12.50	\$ 10.10
Stone	35.85	31.15	26.40	21.50
Artificial stone	19.60	15.70	11.80	7.80

Paving (+)	
Crushed Stone	\$0.40/SF
Concrete	3.10/SF
Asphalt	2.05/SF

The **paving** schedule is used to value sidewalks, driveways, *etc.* The amount of the addition is determined by the type of material used.

Values are indicated for crushed stone, concrete, and asphalt. To determine the amount of the addition, multiply the square footage of the paved area times the indicated value.

The base price includes a basement. If the structure does not have a basement, then a minus adjustment must be made. If there is no basement, the structure will either be built on a "crawl" or a "slab." When using the **foundation** table, the left column indicates the square footage of the area not over a basement, the corresponding columns to the right indicate the value to be subtracted. The amount of the deduction depends on the area, as well as the type of construction.

Foundation (-)		
SFGA	Crawl	Slab
100	\$ 750	\$ 1,450
200	1,500	2,950
300	2,300	4,400
400	3,050	5,900
500	3,800	7,350
600	4,550	8,800
700	5,300	10,300
800	6,100	11,750
900	6,850	13,250
1,000	7,600	14,700
1,100	8,350	16,150
1,200	9,100	17,650
1,300	9,900	19,100
1,400	10,650	20,600
1,500	11,400	22,050
Over	7.60/SF	14.70/SF

Ordinarily there is no basement deduction for split-level construction. However, make a deduction of \$13.60 per square foot of unfinished floor area for split-level construction in which the lower level is not finished.

Stoop, decks, patios (+)	
Stoop - masonry	\$18.75/SF
Deck - wood	17.05/SF
Patio - concrete	3.10/SF
Patio - brick	14.65/SF

Stoops, decks, and patios are not included in the base price, so an addition must be made. To determine the value, multiply the square footage of the structure times the indicated value.

Garages (+)		
SFGA	Frame	Masonry
140	\$ 2,350	\$ 2,850
160	2,700	3,250
180	3,000	3,700
200	3,350	4,100
220	3,700	4,500
240	4,000	4,900
260	4,350	5,300
280	4,700	5,750
300	5,050	6,150
320	5,350	6,550
340	5,700	6,950
360	6,050	7,350
380	6,350	7,750
400	6,700	8,200
420	7,050	8,600
440	7,350	9,000
460	7,700	9,400
480	8,050	9,800
500	8,400	10,250
520	8,700	10,650
540	9,050	11,050
560	9,400	11,450
580	9,700	11,850
Over	16.75/SF	20.45/SF

Note: Price garages constructed as an integral part of the main structure as part of the finished dwelling, then deduct \$13.60 per square foot of garage area for on-grade and split-level construction.

Garages are additions to the base cost. If the garage is an attached garage, it should be listed in the computation ladder. If it is a separate detached structure, it should be listed at the bottom of the PRC under “summary of other buildings.” To determine the amount of the addition, refer to the left column for the square footage of the garage, then look in the columns to the right to obtain a value based on the type of construction.

If your structure has an **attic**, you must make an addition. An attic is an area accessible by a stationary, permanent staircase. In this schedule, “finished” refers to walls, ceilings, and floors constructed to enable the attic to be used as suitable living quarters.

Attic (+)			
SFGA	Unfinished	½ Finished	Finished
400	\$ 5,850	\$ 9,100	\$ 12,300
600	6,250	10,100	13,950
800	6,700	11,150	15,600
1,000	7,100	12,200	17,250
1,200	7,500	13,200	18,900
1,400	7,900	14,250	20,550
1,600	8,350	15,300	22,200
1,800	8,750	16,300	23,850
2,000	9,150	17,350	25,500
2,200	9,600	18,400	27,150
2,400	10,000	19,400	28,800
2,600	10,400	20,450	30,500
2,800	10,850	21,500	32,150
3,000	11,250	22,550	33,800

Swimming **pools** are not included in the base price. If the property includes a pool, an addition needs to be made to the base price. The pool would be listed under "summary of other buildings" at the bottom of the PRC.

Residential pools in ground (+)		
Price includes excavation, filtering system, pump, chlorinator, ladder, and diving board.		
SFSA	Concrete	Vinyl liner
300	\$ 21,900	\$ 18,000
450	27,100	20,100
525	28,700	21,900
650	32,100	23,800
800	36,400	26,100
1,000	40,600	30,500
Price permanent type above-ground pools at 50% of vinyl liner price.		
Pool additions (+)		
Pool heaters		
50 MBTU		\$ 1,305
75 MBTU		1,515
100 MBTU		1,760
Note: Prices in this schedule represent pool costs. The extent to which a pool may enhance an individual property's market value is determined by the area or subdivision in which it is located. In certain areas, the presence of a swimming pool may even diminish market value.		

Porches (+)				
SFGA	OFP	EFP	OMP	EMP
12	\$950	\$1,400	\$1,000	\$1,800
16	1,000	1,500	1,100	1,900
20	1,050	1,650	1,200	2,050
30	1,250	1,950	1,400	2,400
40	1,400	2,250	1,650	2,700
60	1,700	2,800	2,100	3,400
80	2,050	3,400	2,600	4,050
100	2,350	4,000	3,050	4,750
125	2,750	4,700	3,600	5,550
150	3,150	5,450	4,200	6,400
175	3,550	6,200	4,750	7,250
200	3,950	6,900	5,350	8,050
250	5,200	8,400	6,700	9,950
300	6,000	9,850	7,850	11,600
350	6,800	11,350	9,000	13,300
400	7,600	12,800	10,150	14,950
450	8,450	14,250	11,300	16,650
OVER	18.80/SF	31.65/SF	25.10/SF	37.00/SF

Porches are not included in the base cost. If the structure has one or more porches, an addition to the base price must be made. To determine a value, locate the square footage of the porch in the left column and then go to the appropriate construction type in the right columns for the value. If you have more than one porch attached to the structure, price each porch individually. You cannot combine the total square footage for all porches. OFP indicates an open-frame porch, EFP an enclosed-frame porch, OMP an open-masonry porch, and EMP an enclosed-masonry porch.

REL depreciation tables

As discussed earlier, the condition, desirability, and utility of the property are factored in by using various CDU ratings. Structures can be rated excellent, good, average, poor, or unsound. The actual age of the structure and the CDU rating produce the effective age of a property. The effective age of the property determines the remaining economic life (REL) factor, which is applied to the RCN of a structure to adjust for depreciation.

REL + depreciation = 100% of the value.

The Residential REL Depreciation Tables are used to determine the REL factor. Looking at Schedule A, the left column reflects the actual age of the structure based on the construction date. Once you locate the actual age, move to the right to the appropriate column and find the effective age based on the CDU rating assigned to the property. Once you determine the effective age of the property, move to Schedule B. The left column of Schedule B lists the effective age, and the number next to it is the REL factor that is used to adjust the value in the computation ladder.

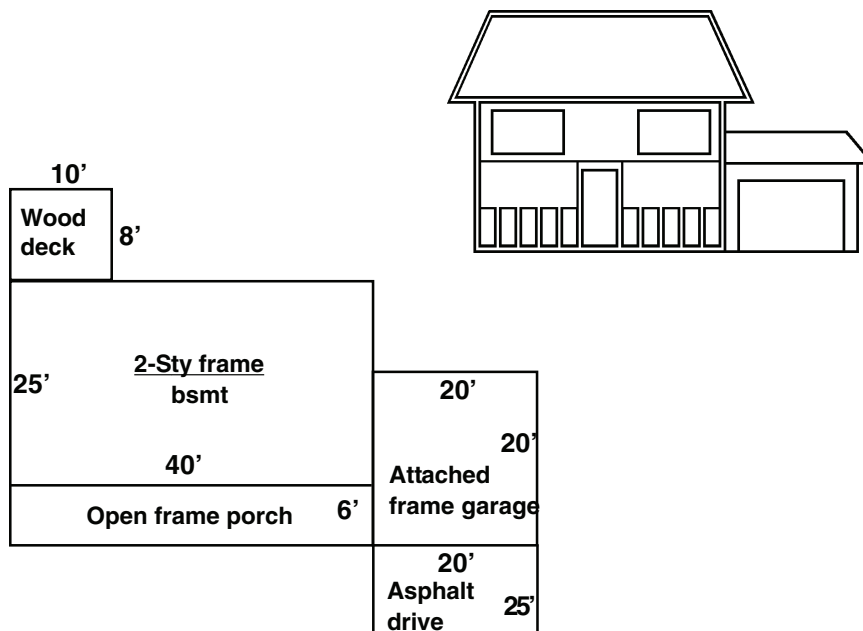
Residential REL Table

Schedule A											Schedule B				
Age	Effective Age					Age	Effective Age					Eff. Age	REL	Eff. Age	REL
	E	G	A	P	U		E	G	A	P	U				
1	1	1	1	18	63	70	24	39	70	102	117	1	100	73	68
2	1	1	2	19	67	71	24	40	71	102	117	2	99	74	67
3	1	1	3	21	71	72	25	41	72	102	117	3	98	75	67
4	1	1	4	22	75	73	25	42	73	102	117	4	97	76	67
5	1	1	5	24	78	74	26	43	74	103	117	5	96	77	66
6	1	1	6	26	81	75	26	44	75	103	117	6	95	78	66
7	1	1	7	29	84	76	27	45	76	103	118	7	94	79	66
8	1	1	8	32	86	77	28	47	77	104	118	8	93	80	65
9	1	2	9	35	88	78	29	48	78	104	118	9	92	81	65
10	1	3	10	38	90	79	30	49	79	104	118	10	91	82	65
11	1	4	11	41	92	80	31	51	80	105	119	11	90	83	64
12	1	5	12	44	94	81	32	53	81	105	119	12	89	84	64
13	1	6	13	47	95	82	32	55	82	105	119	13	88	85	63
14	1	6	14	50	95	83	34	57	83	106	120	14	88	86	63
15	1	7	15	54	96	84	35	59	84	106	120	15	87	87	62
16	2	8	16	57	98	85	36	62	85	107	121	16	86	88	62
17	2	8	17	60	98	86	37	64	86	107	121	17	86	89	61
18	3	9	18	63	99	87	39	66	87	108	121	18	85	90	61
19	4	10	19	66	100	88	41	68	88	108	122	19	84	91	60
20	4	10	20	69	101	89	43	70	89	109	122	20	84	92	60
21	5	11	21	72	102	90	45	72	90	109	122	21	83	93	59
22	6	12	22	74	103	91	47	74	91	110	123	22	82	94	59
23	6	12	23	76	103	92	49	76	92	110	123	23	82	95	58
24	7	13	24	78	104	93	52	78	93	111	124	24	81	96	57
25	7	14	25	79	104	94	54	79	94	111	124	25	81	97	57
26	8	15	26	81	105	95	58	81	95	112	125	26	80	98	56
27	8	15	27	82	105	96	61	83	96	113	125	27	80	99	55
28	9	16	28	83	106	97	63	84	97	113	126	28	79	100	54
29	9	17	29	84	106	98	67	85	98	114	126	29	79	101	54
30	9	17	30	84	106	99	71	87	99	115	127	30	79	102	53
31	10	18	31	85	107	100	74	89	100	116	128	31	78	103	52
32	10	18	32	86	107	101	76	90	101	116	128	32	78	104	51
33	11	19	33	87	108	102	78	92	102	117	129	33	77	105	50
34	11	20	34	88	108	103	81	94	103	118	130	34	77	106	49
35	11	20	35	88	108	104	83	95	104	118	130	35	77	107	48
36	12	21	36	89	109	105	85	97	105	119	131	36	76	108	47
37	12	21	37	90	109	106	87	98	106	120	132	37	76	109	46
38	12	21	38	90	109	107	89	99	107	121	133	38	76	110	45
39	13	22	39	91	110	108	91	101	108	121	133	39	75	111	44
40	13	22	40	91	110	109	93	102	109	122	134	40	75	112	43
41	14	23	41	92	110	110	95	103	110	123	135	41	75	113	42
42	14	23	42	92	110	111	97	104	111	124	136	42	75	114	41
43	15	24	43	93	111	112	98	105	112	125	137	43	74	115	40
44	15	24	44	93	111	113	99	106	113	126	138	44	74	116	39
45	15	25	45	94	111	114	101	107	114	126	138	45	74	117	38
46	15	25	46	94	111	115	102	108	115	127	139	46	74	118	36
47	16	26	47	95	112	116	103	109	116	128	140	47	73	119	35
48	16	26	48	95	112	117	104	110	117	129	141	48	73	120	34
49	17	27	49	95	112	118	106	112	118	130	142	49	73	121	33
50	17	27	50	95	112	119	107	113	119	131	143	50	73	122	31
51	18	28	51	96	113	120	108	114	120	132	143	51	72	123	30
52	18	28	52	96	113	121	109	115	121	133	143	52	72	124	29
53	18	29	53	97	113	122	111	117	122	134	143	53	72	125	28
54	18	30	54	97	113	123	112	117	123	135	143	54	72	126	26
55	18	30	55	97	113	124	113	118	124	136	143	55	72	127	25
56	19	31	56	98	114	125	114	119	125	137	143	56	71	128	24
57	19	31	57	98	114	126	116	121	126	138	143	57	71	129	23
58	20	32	58	98	114	127	117	121	127	139	143	58	71	130	21
59	20	32	59	98	114	128	118	122	128	139	143	59	71	131	20
60	20	32	60	98	114	129	118	123	129	139	143	60	71	132	19
61	21	33	61	99	115	130	120	125	130	139	143	61	70	133	18
62	21	33	62	99	115	131	121	125	131	139	143	62	70	134	16
63	21	34	63	99	115	132	122	126	132	139	143	63	70	135	15
64	21	35	64	99	115	133	122	127	133	139	143	64	70	136	14
65	21	35	65	99	115	134	124	129	134	139	143	65	70	137	13
66	22	36	66	100	116	135	125	129	135	139	143	66	69	138	11
67	22	37	67	100	116	136	126	130	135	139	143	67	69	139	10
68	23	37	68	101	116	137	126	131	135	139	143	68	69	140	9
69	23	38	69	101	116	138	127	131	135	139	143	69	69	141	8
See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.											70	68	142	7	
											71	68	143	5	
											72	68			

Computing the value of a structure

The subject property is a 10-year old, 2-story frame structure with 8 rooms, including 4 bedrooms and a family room.

The foundation is 8" masonry — there is a full basement, unfinished — the dwelling has central warm air heat and central air conditioning — plumbing consists of the standard 5 plumbing fixtures, plus an additional full bath and a separate half-bath (2 fixtures) — exterior walls are covered with aluminum siding with 300 square feet of common-stone trim, grade “C,” across the front — the roof is covered with asphalt shingles — the basement floor is concrete and the first and second floors are covered with tile and carpet — the interior finish is drywall on the first and second floors — there is one fireplace, quality grade “C” — the structure has an attached 400 square foot frame garage, with a 500 square foot asphalt drive — there is an 80 square foot wood deck on the rear of the structure — the property has a CDU of “average,” and quality grade “C.”



The entire PRC-2 for this property is on the opposite page. Refer to the computation ladder and the corresponding line numbers as you go through this line-by-line example.

6-21

Property Record — Residential — Rural

IL-492-1155

- 1 The structure is 10 years old, so 10 is written on the **Age** line.
- 2 The **CDU** is listed as “average.”
- 3 The **Quality grade** is listed as “C.”
- 4 The dwelling is a 2-story, frame structure with 1,000 square feet on the ground floor.
- 5 Looking at the **Base cost schedule — wood frame construction**, the base price is \$104,650.
- 6 The structure has a **basement**, so no adjustment is necessary.
- 7 The structure is heated, so no adjustment is necessary for heat. However, the structure has central air conditioning. Since air conditioning is **not** included in the base price, you must make a plus adjustment. Look at the **Central air conditioning schedule** — a 2-story structure with 1,000 square feet of ground area requires a plus adjustment of \$2,800.
- 8 There are no variances in story height, so no **schedule combining** is necessary.
- 9 In addition to the standard 5 plumbing fixtures, there is an additional bathroom and a toilet room, so a plus adjustment for 5 additional fixtures is required. Reference the **Plumbing schedule** — the appropriate adjustment is \$1,465 per fixture, or a plus \$7,325 (5 x \$1,465).
- 10 No adjustment is needed since there is no **attic**.
- 11 The listing indicated 1 “open frame porch,” which is 240 square feet. Refer to the **Porch schedule** — the value for a 250 square foot open frame porch is \$5,200. Since no value is given for 240 square feet, choose the **closest** listed footage.
- 12 The next addition needed is for an 80 square foot wood deck. Looking at the schedules for **Decks** — the base price is \$17.05 per square foot. To arrive at a value, take 80 SF x \$17.05 = \$1,364.

- 13 There is a 400 square foot attached frame garage. Look at the **Garage schedule** — a plus \$6,700 adjustment is required.
- 14 The base cost of \$104,650 and adjustments made so far (for central air conditioning, plumbing, a porch, a deck, and the attached garage) are totalled to arrive at \$128,039.
- 15 The next line refers to the quality grade. The quality grade for this structure is “C.” Looking at the schedule for **Quality** — the factor for “C” is 100 percent. Since the grade is “C,” or average quality construction, the values are not affected. Particular attention should always be paid to the factor assigned; any grade other than “C” will produce a factor other than 100 percent and change the value.
- 16 Taking 100 percent (1.00) times \$128,039, the value remains \$128,039.
- 17 It should be noted that in the first part of the computation ladder, a quality grade factor of 1.00 was applied to the adjusted base price. However, in the items listed in the next portion of the ladder, individual quality grades for each feature must be considered when selecting the amount of adjustments.
- 18 The property has 300 square feet of common stone trim, grade “C.” Looking at the schedule for **Partial masonry trim**, find “stone” and grade “C” — the value is \$26.40. Taking 300 square feet x \$26.40 produces a value of \$7,920 to add to the cost.
- 19 This structure contains 1 fireplace, grade “C.” Referencing the **Fireplace schedule** — the value for a fireplace and stack, quality grade C, is \$3,090.
- 20 There is no finished **basement** so no adjustment is needed.
- 21 There are no more adjustments to make to the computation ladder at this point. Adding the adjusted base price of \$128,039, to the value of the trim and fireplace results in a total of \$139,049.

- 22 As stated earlier, the values in the IRPAM are for the central Illinois area. From the cost factor study conducted earlier, this property is in an area where construction costs run about 6 percent higher. Therefore, you must use the cost factor of 106 percent to obtain accurate values for this jurisdiction.
- 23 When the adjusted value of \$139,049 is multiplied by 106 percent (1.06), the resulting value of \$147,392 is the RCN of this structure.
- 24 Since the structure is 10 years old, the RCN must be adjusted for any depreciation that has occurred. Going to **Schedule A** of the **Residential REL Depreciation Tables** — a 10-year old structure with a CDU of “average” has an effective age of 10. On **Schedule B**, an effective age of 10 indicates an REL factor of 91 percent. This property has depreciated 9 percent (REL + depreciation = 100 percent).
- 25 Taking 91 percent (.91) of the RCN of \$147,392 produces a full value of \$134,127 for this structure today.
- 26 The listing also indicates that there is a 500 square foot asphalt driveway. Reference the **Paving schedule** — the price per square foot of paved area is \$2.05. To arrive at a value, take $500 \text{ SF} \times \$2.05 = \$1,025 \times 1.00$ (quality grade) - $\$1,025 \times 1.06$ (cost factor) = \$1,087 (RCN). $\$1,087 \text{ (RCN)} \times .91 \text{ (REL)} = \989 full value.
- 27 The value for the asphalt drive is \$989 and this becomes the full value of the other buildings.
- 28 The final step is adding \$989, the full value of the other buildings, to \$134,127, the full value of the dwelling, which results in a full value of \$135,116 for all buildings.

The following schedules show how the values were obtained.

Residential Schedules

Base cost schedule — wood frame construction											
SFGA	Stories					SFGA	Stories				
	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.		1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	\$15,800	\$19,950	\$16,000	\$21,300	\$26,800	1,600	\$94,200	\$132,350	\$111,200	\$147,050	\$200,650
25	18,550	23,500	18,900	25,150	31,800	25	95,250	133,950	112,600	148,900	203,200
50	21,050	26,800	21,600	28,750	36,450	50	96,350	135,550	113,950	150,700	205,750
75	23,400	29,950	24,100	32,100	40,850	75	97,450	137,200	115,350	152,500	208,300
200	25,600	32,850	26,550	35,300	45,050	1,700	98,550	138,800	116,750	154,350	210,900
25	27,700	35,650	28,850	38,400	49,100	25	99,650	140,450	118,150	156,150	213,450
50	29,650	38,350	31,050	41,300	53,000	50	100,800	142,100	119,550	158,000	216,050
75	31,550	40,900	33,150	44,150	56,750	75	101,900	143,750	120,950	159,850	218,600
300	33,350	43,400	35,200	46,850	60,400	1,800	103,050	145,400	122,350	161,750	221,200
25	35,100	45,750	37,200	49,500	63,950	25	104,200	147,050	123,800	163,600	223,850
50	36,800	48,100	39,150	52,050	67,400	50	105,350	148,700	125,200	165,500	226,450
75	38,400	50,300	41,000	54,500	70,750	75	106,500	150,400	126,650	167,350	229,050
400	39,950	52,500	42,850	56,950	74,050	1,900	107,650	152,100	128,100	169,250	231,700
25	41,450	54,600	44,600	59,300	77,250	25	108,850	153,800	129,550	171,150	234,350
50	42,950	56,700	46,350	61,600	80,400	50	110,000	155,500	131,000	173,100	237,050
75	44,350	58,700	48,050	63,850	83,500	75	111,200	157,200	132,450	175,000	239,700
500	45,750	60,700	49,700	66,050	86,550	2,000	112,400	158,950	133,950	176,950	242,400
25	47,100	62,650	51,350	68,200	89,500	25	113,600	160,700	135,450	178,900	245,100
50	48,450	64,550	52,950	70,350	92,450	50	114,850	162,450	136,900	180,850	247,800
75	49,750	66,400	54,550	72,450	95,350	75	116,050	164,200	138,400	182,850	250,500
600	51,000	68,250	56,100	74,500	98,250	2,100	117,300	166,000	139,950	184,800	253,250
25	52,250	70,050	57,650	76,550	101,050	25	118,550	167,800	141,450	186,800	256,000
50	53,500	71,850	59,150	78,550	103,850	50	119,800	169,600	143,000	188,800	258,750
75	54,700	73,600	60,650	80,500	106,600	75	121,100	171,400	144,500	190,850	261,550
700	55,850	75,300	62,150	82,450	109,350	2,200	122,350	173,200	146,050	192,850	264,300
25	57,050	77,050	63,600	84,400	112,050	25	123,650	175,050	147,600	194,900	267,150
50	58,200	78,750	65,050	86,300	114,750	50	124,950	176,900	149,200	196,950	269,950
75	59,350	80,400	66,500	88,200	117,400	75	126,300	178,750	150,750	199,050	272,750
800	60,450	82,050	67,900	90,100	120,050	2,300	127,600	180,600	152,350	201,100	275,600
25	61,550	83,700	69,300	91,950	122,650	25	128,950	182,500	153,950	203,200	278,500
50	62,650	85,350	70,700	93,800	125,250	50	130,300	184,400	155,550	205,300	281,350
75	63,750	86,950	72,100	95,650	127,850	75	131,650	186,300	157,150	207,450	284,250
900	64,850	88,550	73,500	97,450	130,450	2,400	133,000	188,250	158,750	209,550	287,150
25	65,900	90,150	74,850	99,250	133,000	25	134,400	190,200	160,400	211,700	290,050
50	67,000	91,750	76,250	101,050	135,550	50	135,800	192,150	162,050	213,850	293,000
75	68,050	93,350	77,600	102,850	138,100	75	137,200	194,100	163,700	216,050	295,950
1,000	69,100	94,900	78,950	104,650	140,650	2,500	138,600	196,100	165,350	218,250	298,900
25	70,150	96,500	80,300	106,450	143,150	25	140,050	198,050	167,050	220,450	301,900
50	71,200	98,050	81,650	108,200	145,650	50	141,500	200,100	168,750	222,650	304,900
75	72,250	99,600	83,000	109,950	148,150	75	142,950	202,100	170,450	224,900	307,950
1,100	73,250	101,150	84,350	111,750	150,700	2,600	144,400	204,150	172,150	227,150	310,950
25	74,300	102,700	85,650	113,500	153,200	25	145,900	206,200	173,850	229,400	314,000
50	75,350	104,250	87,000	115,250	155,650	50	147,400	208,250	175,600	231,700	317,100
75	76,350	105,800	88,350	117,000	158,150	75	148,900	210,350	177,350	233,950	320,150
1,200	77,400	107,350	89,700	118,750	160,650	2,700	150,450	212,450	179,100	236,300	323,250
25	78,450	108,900	91,000	120,500	163,150	25	151,950	214,550	180,850	238,600	326,400
50	79,450	110,450	92,350	122,250	165,600	50	153,500	216,650	182,650	240,950	329,500
75	80,500	112,000	93,650	124,000	168,100	75	155,050	218,800	184,450	243,300	332,650
1,300	81,550	113,550	95,000	125,800	170,600	2,800	156,650	220,950	186,250	245,650	335,850
25	82,550	115,100	96,350	127,550	173,100	25	158,250	223,150	188,050	248,050	339,050
50	83,600	116,650	97,700	129,300	175,550	50	159,850	225,350	189,900	250,450	342,250
75	84,650	118,200	99,000	131,050	178,050	75	161,450	227,550	191,700	252,850	345,450
1,400	85,700	119,750	100,350	132,800	180,550	2,900	163,050	229,750	193,550	255,300	348,700
25	86,750	121,300	101,700	134,600	183,050	25	164,700	232,000	195,450	257,750	351,950
50	87,800	122,900	103,050	136,350	185,550	50	166,350	234,250	197,300	260,200	355,250
75	88,850	124,450	104,400	138,100	188,050	75	168,050	236,500	199,200	262,700	358,550
1,500	89,900	126,000	105,750	139,900	190,550	3,000	169,750	238,800	201,100	265,200	361,850
25	90,950	127,600	107,100	141,700	193,100	OVER	56.60/SF	79.60/SF	67.05/SF	88.40/SF	120.60/SF
50	92,050	129,200	108,450	143,450	195,600						
75	93,100	130,750	109,850	145,250	198,150						

Base price schedules include normal construction features, such as foundation, basement and basement walls, all exteriors walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.

Schedule combining — frame/masonry (-)											
Frame						Masonry					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story	SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
100	\$10,550	\$10,650	\$10,650	\$10,750	\$10,950	100	\$11,900	\$12,050	\$12,050	\$12,200	\$12,400
200	11,350	11,550	11,500	11,700	12,000	200	12,900	13,150	13,100	13,400	13,800
300	11,950	12,200	12,150	12,400	12,900	300	13,700	14,000	13,950	14,350	14,900
400	12,450	12,800	12,750	13,050	13,650	400	14,350	14,750	14,700	15,150	15,850
500	12,900	13,350	13,250	13,600	14,350	500	14,900	15,400	15,350	15,850	16,700
600	13,300	13,800	13,700	14,150	14,950	600	15,400	16,000	15,950	16,500	17,500
700	13,700	14,250	14,150	14,600	15,550	700	15,900	16,550	16,500	17,150	18,250
800	14,050	14,650	14,600	15,100	16,150	800	16,350	17,100	17,000	17,700	19,000
900	14,400	15,050	15,000	15,500	16,700	900	16,800	17,600	17,500	18,250	19,650
1,000	14,700	15,450	15,350	15,950	17,200	1,000	17,200	18,100	18,000	18,800	20,350
1,100	15,000	15,800	15,750	16,350	17,700	1,100	17,550	18,550	18,450	19,300	21,000
1,200	15,300	16,150	16,100	16,750	18,200	1,200	17,950	19,000	18,900	19,800	21,600
1,300	15,600	16,550	16,450	17,150	18,700	1,300	18,300	19,450	19,300	20,300	22,250
1,400	15,900	16,900	16,800	17,550	19,200	1,400	18,700	19,900	19,750	20,750	22,850
1,500	16,200	17,250	17,150	17,950	19,700	1,500	19,050	20,300	20,200	21,250	23,500
1,600	16,450	17,550	17,500	18,300	20,200	1,600	19,400	20,750	20,600	21,700	24,100
1,700	16,750	17,900	17,850	18,700	20,650	1,700	19,750	21,200	21,050	22,200	24,700
1,800	17,050	18,250	18,200	19,100	21,150	1,800	20,100	21,600	21,450	22,700	25,300
1,900	17,300	18,600	18,550	19,450	21,650	1,900	20,450	22,050	21,850	23,150	25,950
2,000	17,600	18,950	18,900	19,850	22,150	2,000	20,850	22,450	22,300	23,650	26,550
2,100	17,900	19,300	19,250	20,250	22,650	2,100	21,200	22,900	22,700	24,150	27,150
2,200	18,150	19,650	19,600	20,650	23,150	2,200	21,550	23,350	23,150	24,600	27,800
2,300	18,450	20,000	19,950	21,050	23,650	2,300	21,900	23,800	23,600	25,100	28,450
2,400	18,750	20,400	20,300	21,450	24,150	2,400	22,300	24,250	24,050	25,600	29,050
2,500	19,050	20,750	20,650	21,850	24,700	2,500	22,650	24,700	24,450	26,150	29,700
2,600	19,400	21,100	21,050	22,250	25,200	2,600	23,050	25,150	24,900	26,650	30,350
2,700	19,700	21,500	21,400	22,700	25,750	2,700	23,450	25,600	25,400	27,200	31,050
2,800	20,000	21,900	21,800	23,100	26,300	2,800	23,800	26,100	25,850	27,700	31,700
2,900	20,350	22,250	22,150	23,550	26,850	2,900	24,200	26,550	26,300	28,250	32,400
3,000	20,650	22,650	22,550	24,000	27,400	3,000	24,600	27,050	26,800	28,800	33,100

Log homes Base cost per SFFA						
SFFA	1 Story		1½ Story		2 Story	
	6" logs	8" logs	6" logs	8" logs	6" logs	8" logs
600	\$114.20	\$113.25	—	—	—	—
800	103.20	102.35	—	—	—	—
1,000	94.60	93.85	\$104.45	\$101.80	\$114.30	\$109.80
1,200	87.85	87.15	91.05	92.80	94.25	98.45
1,400	82.40	81.80	86.15	87.70	89.85	93.65
1,600	77.80	77.20	82.25	83.90	86.70	90.60
1,800	75.50	74.95	79.35	80.95	83.15	86.95
2,000	73.95	73.40	76.90	78.30	79.90	83.15
2,200	71.40	70.95	74.45	75.95	77.50	80.95
2,400	68.90	68.45	72.05	73.50	75.20	78.50
2,600	66.90	66.40	69.90	71.20	72.90	76.00
2,800	64.90	64.30	67.60	68.85	70.25	73.40
3,000	63.85	63.30	65.75	67.05	67.65	70.80
3,200	62.80	62.30	64.80	66.05	66.75	69.85
3,400	—	—	—	—	65.85	68.90
3,800	—	—	—	—	64.05	66.80

Base price schedules include normal construction features, such as a basement, post and beam frame, log exterior walls, floors, asphalt shingled roof, drywall interior finish, forced warm air central heating, lighting, and plumbing (five fixtures).

Plumbing (±)		
Per fixture less than standard	Deduct	\$1,465
Per fixture greater than standard	Add	\$1,465

Quality	
Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

Residential schedules

No heat (-)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$2,000	\$2,200	\$2,400	\$2,400	\$2,800
400	2,450	2,950	3,350	3,350	4,400
600	2,900	3,650	4,550	4,550	6,000
800	3,400	4,650	5,750	5,750	7,300
1,000	3,850	5,350	6,650	6,650	8,600
1,200	4,650	6,400	7,550	7,550	9,900
1,400	5,100	7,100	8,450	8,450	11,200
1,600	5,850	7,800	9,400	9,400	12,500
1,800	6,350	8,500	10,300	10,300	13,800
2,000	6,800	9,200	11,200	11,200	15,100
2,200	7,250	9,950	12,100	12,100	16,400
2,400	7,750	10,650	13,000	13,000	17,700
2,600	8,200	11,350	13,900	13,900	19,000
2,800	8,700	12,050	14,800	14,800	20,300
3,000	9,150	12,800	15,750	15,750	21,600

Partial masonry trim (+) Per SF of surface area				
Quality	A	B	C	D
Brick	\$17.05	\$14.80	\$12.50	\$10.10
Stone	35.85	31.15	26.40	21.50
Artificial stone	19.60	15.70	11.80	7.80

Paving (+)	
Crushed stone	\$0.40/SF
Concrete	3.10/SF
Asphalt	2.05/SF

Central air conditioning (+)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050
400	2,050	2,050	2,050	2,050	2,200
600	2,050	2,200	2,200	2,200	2,650
800	2,050	2,350	2,350	2,650	3,200
1,000	2,200	2,650	2,650	2,800	4,250
1,200	2,200	2,800	2,800	3,200	5,250
1,400	2,350	2,950	2,950	4,250	5,600
1,600	2,650	4,250	4,250	4,250	6,000
1,800	2,650	4,250	4,250	5,250	7,200
2,000	2,800	5,250	5,250	5,400	8,400
2,200	3,200	5,600	5,600	5,750	8,650
2,400	3,200	5,600	5,600	6,000	9,000
2,600	3,200	5,750	5,750	6,450	11,000
2,800	4,250	6,000	6,000	7,200	11,450
3,000	4,250	6,000	6,000	8,400	12,600

Note: When using Schedule Combining with houses that have central air conditioning, subtract an additional \$1,600.

Foundation (-)		
SFGA	Crawl	Slab
100	\$750	\$1,450
200	1,500	2,950
300	2,300	4,400
400	3,050	5,900
500	3,800	7,350
600	4,550	8,800
700	5,300	10,300
800	6,100	11,750
900	6,850	13,250
1,000	7,600	14,700
1,100	8,350	16,150
1,200	9,100	17,650
1,300	9,900	19,100
1,400	10,650	20,600
1,500	11,400	22,050
OVER	7.60/SF	14.70/SF

Note: Ordinarily there is no basement deduction for split-level construction. However, make a deduction of \$13.60 per SF of unfinished floor area for split-level construction in which the lower level is not finished.

Fireplace (+)				
Quality	A	B	C	D
Fireplace & stack	\$6,805	\$4,620	\$3,090	\$2,100
2nd fireplace on same stack	5,445	3,695	2,470	1,680

Finished basement (+) Per SF of finished floor area				
Quality	A	B	C	D
Recreation room	\$7.70	\$6.25	\$5.15	\$4.20
Living quarters	20.30	16.55	13.55	11.10

Stoop, decks, patios (+)	
Stoop masonry	18.75/SF
Deck-wood	17.05/SF
Patio-concrete	3.10/SF
Patio-brick	14.65/SF

Garages (+)		
SFGA	Frame	Masonry
140	\$2,350	\$2,850
160	2,700	3,250
180	3,000	3,700
200	3,350	4,100
220	3,700	4,500
240	4,000	4,900
260	4,350	5,300
280	4,700	5,750
300	5,050	6,150
320	5,350	6,550
340	5,700	6,950
360	6,050	7,350
380	6,350	7,750
400	6,700	8,200
420	7,050	8,600
440	7,350	9,000
460	7,700	9,400
480	8,050	9,800
500	8,400	10,250
520	8,700	10,650
540	9,050	11,050
560	9,400	11,450
580	9,700	11,850
OVER	16.75/SF	20.45/SF

Note: Price garages constructed as an integral part of the main structure as part of the finished dwelling, then deduct \$13.60 per square foot of garage area for on-grade and split-level construction.

Attic (+)			
SFGA	Unfinished	½ Finished	Finished
400	\$5,850	\$9,100	\$12,300
600	6,250	10,100	13,950
800	6,700	11,150	15,600
1,000	7,100	12,200	17,250
1,200	7,500	13,200	18,900
1,400	7,900	14,250	20,550
1,600	8,350	15,300	22,200
1,800	8,750	16,300	23,850
2,000	9,150	17,350	25,500
2,200	9,600	18,400	27,150
2,400	10,000	19,400	28,800
2,600	10,400	20,450	30,500
2,800	10,850	21,500	32,150
3,000	11,250	22,550	33,800

Porches (+)				
SFGA	OFF	EFP	OMP	EMP
12	\$950	\$1,400	\$1,000	\$1,800
16	1,000	1,500	1,100	1,900
20	1,050	1,650	1,200	2,050
30	1,250	1,950	1,400	2,400
40	1,400	2,250	1,650	2,700
60	1,700	2,800	2,100	3,400
80	2,050	3,400	2,600	4,050
100	2,350	4,000	3,050	4,750
125	2,750	4,700	3,600	5,550
150	3,150	5,450	4,200	6,400
175	3,550	6,200	4,750	7,250
200	3,950	6,900	5,350	8,050
250	5,200	8,400	6,700	9,950
300	6,000	9,850	7,850	11,600
350	6,800	11,350	9,000	13,300
400	7,600	12,800	10,150	14,950
450	8,450	14,250	11,300	16,650
OVER	18.80/SF	31.65/SF	25.10/SF	37.00/SF

Residential pools in ground (+)		
Price includes excavation, filtering system, pump, chlorinator, ladder, and diving board.		
SFSA	Concrete	Vinyl liner
300	\$21,900	\$18,000
450	27,100	20,100
525	28,700	21,900
650	32,100	23,800
800	36,400	26,100
1,000	40,600	30,500

Price permanent type above-ground pools at 50% of vinyl liner price.

Pool additions (+)	
Pool Heaters	
50MBTU	\$1,305
75MBTU	1,515
100MBTU	1,760

Note: Prices in this schedule represent pool costs. The extent to which a pool may enhance an individual property's market value is determined by the area or subdivision in which it is located. In certain areas, the presence of a swimming pool may even diminish the market value.

Residential schedules

Mobile home schedule											
Base costs includes average construction features, permanent inexpensive crawl space foundation, steps, plumbing (five fixtures), lighting, and central heating. Furniture is not included.											
WIDTH	40'	44'	48'	52'	56'	60'	64'	68'	72'	76'	80'
8'	\$19,250	\$20,950	\$22,650	\$24,350	\$26,000	\$27,600	\$29,250	\$30,850	\$32,400	\$34,000	\$35,550
12'	23,300	25,250	27,200	29,100	31,000	32,800	34,650	36,450	38,200	40,000	41,700
14'	24,700	26,800	28,850	30,900	32,900	34,850	36,800	38,750	40,650	42,550	44,400
16'	26,350	28,550	30,700	32,800	34,900	36,950	39,000	41,000	43,000	44,950	46,900
20'	41,900	44,950	47,900	50,750	53,550	56,250	58,900	61,550	64,100	66,600	69,100
24'	45,450	48,500	51,450	54,300	57,100	59,800	62,400	65,000	67,500	70,000	72,400
28'	48,700	51,800	54,700	57,550	60,300	62,950	65,550	68,100	70,550	72,950	75,350
32'	50,800	53,950	56,950	59,850	62,650	65,400	68,050	70,650	73,150	75,600	78,050

Mobile home REL Table											
Age	REL	Age	REL	Age	REL	Age	REL	Age	REL	Age	REL
1	87	4	69	7	58	10	50	13	44	16	40
2	80	5	65	8	55	11	48	14	43	17	39
3	74	6	61	9	52	12	46	15	41	18	38
										Over 20	35

Residential REL Table

Schedule A											Schedule B					
Age	Effective Age					Age	Effective Age					Eff. Age	REL	Eff. Age	REL	
	E	G	A	P	U		E	G	A	P	U					
1	1	1	1	18	63	70	24	39	70	102	117	1	100	73	68	
2	1	1	2	19	67	71	24	40	71	102	117	2	99	74	67	
3	1	1	3	21	71	72	25	41	72	102	117	3	98	75	67	
4	1	1	4	22	75	73	25	42	73	102	117	4	97	76	67	
5	1	1	5	24	78	74	26	43	74	103	117	5	96	77	66	
6	1	1	6	26	81	75	26	44	75	103	117	6	95	78	66	
7	1	1	7	29	84	76	27	45	76	103	118	7	94	79	66	
8	1	1	8	32	86	77	28	47	77	104	118	8	93	80	65	
9	1	2	9	35	88	78	29	48	78	104	118	9	92	81	65	
10	1	3	10	38	90	79	30	49	79	104	118	10	91	82	65	
11	1	4	11	41	92	80	31	51	80	105	119	11	90	83	64	
12	1	5	12	44	94	81	32	53	81	105	119	12	89	84	64	
13	1	6	13	47	95	82	32	55	82	105	119	13	88	85	63	
14	1	6	14	50	95	83	34	57	83	106	120	14	88	86	63	
15	1	7	15	54	96	84	35	59	84	106	120	15	87	87	62	
16	2	8	16	57	98	85	36	62	85	107	121	16	86	88	62	
17	2	8	17	60	98	86	37	64	86	107	121	17	86	89	61	
18	3	9	18	63	99	87	39	66	87	108	121	18	85	90	61	
19	4	10	19	66	100	88	41	68	88	108	122	19	84	91	60	
20	4	10	20	69	101	89	43	70	89	109	122	20	84	92	60	
21	5	11	21	72	102	90	45	72	90	109	122	21	83	93	59	
22	6	12	22	74	103	91	47	74	91	110	123	22	82	94	59	
23	6	12	23	76	103	92	49	76	92	110	123	23	82	95	58	
24	7	13	24	78	104	93	52	78	93	111	124	24	81	96	57	
25	7	14	25	79	104	94	54	79	94	111	124	25	81	97	57	
26	8	15	26	81	105	95	58	81	95	112	125	26	80	98	56	
27	8	15	27	82	105	96	61	83	96	113	125	27	80	99	55	
28	9	16	28	83	106	97	63	84	97	113	126	28	79	100	54	
29	9	17	29	84	106	98	67	85	98	114	126	29	79	101	54	
30	9	17	30	84	106	99	71	87	99	115	127	30	79	102	53	
31	10	18	31	85	107	100	74	89	100	116	128	31	78	103	52	
32	10	18	32	86	107	101	76	90	101	116	128	32	78	104	51	
33	11	19	33	87	108	102	78	92	102	117	129	33	77	105	50	
34	11	20	34	88	108	103	81	94	103	118	130	34	77	106	49	
35	11	20	35	88	108	104	83	95	104	118	130	35	77	107	48	
36	12	21	36	89	109	105	85	97	105	119	131	36	76	108	47	
37	12	21	37	90	109	106	87	98	106	120	132	37	76	109	46	
38	12	21	38	90	109	107	89	99	107	121	133	38	76	110	45	
39	13	22	39	91	110	108	91	101	108	121	133	39	75	111	44	
40	13	22	40	91	110	109	93	102	109	122	134	40	75	112	43	
41	14	23	41	92	110	110	95	103	110	123	135	41	75	113	42	
42	14	23	42	92	110	111	97	104	111	124	136	42	75	114	41	
43	15	24	43	93	111	112	98	105	112	125	137	43	74	115	40	
44	15	24	44	93	111	113	99	106	113	126	138	44	74	116	39	
45	15	25	45	94	111	114	101	107	114	126	138	45	74	117	38	
46	15	25	46	94	111	115	102	108	115	127	139	46	74	118	36	
47	16	26	47	95	112	116	103	109	116	128	140	47	73	119	35	
48	16	26	48	95	112	117	104	110	117	129	141	48	73	120	34	
49	17	27	49	95	112	118	106	112	118	130	142	49	73	121	33	
50	17	27	50	95	112	119	107	113	119	131	143	50	73	122	31	
51	18	28	51	96	113	120	108	114	120	132	143	51	72	123	30	
52	18	28	52	96	113	121	109	115	121	133	143	52	72	124	29	
53	18	29	53	97	113	122	111	117	122	134	143	53	72	125	28	
54	18	30	54	97	113	123	112	117	123	135	143	54	72	126	26	
55	18	30	55	97	113	124	113	118	124	136	143	55	72	127	25	
56	19	31	56	98	114	125	114	119	125	137	143	56	71	128	24	
57	19	31	57	98	114	126	116	121	126	138	143	57	71	129	23	
58	20	32	58	98	114	127	117	121	127	139	143	58	71	130	21	
59	20	32	59	98	114	128	118	122	128	139	143	59	71	131	20	
60	20	32	60	98	114	129	118	123	129	139	143	60	71	132	19	
61	21	33	61	99	115	130	120	125	130	139	143	61	70	133	18	
62	21	33	62	99	115	131	121	125	131	139	143	62	70	134	16	
63	21	34	63	99	115	132	122	126	132	139	143	63	70	135	15	
64	21	35	64	99	115	133	122	127	133	139	143	64	70	136	14	
65	21	35	65	99	115	134	124	129	134	139	143	65	70	137	13	
66	22	36	66	100	116	135	125	129	135	139	143	66	69	138	11	
67	22	37	67	100	116	136	126	130	135	139	143	67	69	139	10	
68	23	37	68	101	116	137	126	131	135	139	143	68	69	140	9	
69	23	38	69	101	116	138	127	131	135	139	143	69	69	141	8	
												70	68	142	7	
												71	68	143	5	
												72	68			
See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.																

The cost factor of 1.06, developed in Unit 5, Exercise 5-1, will be used for all three of the following exercises. Use the cost factor of 1.06 **only** for these exercises. Do not use this cost factor on your exam unless instructed to do so.

Note: The residential PRC (PRC-2) on your exam will not have a narrative description attached as they do in Exercises 6-1 through 6-3. It is important that you study the PRCs in this segment to ensure that you can correctly interpret the specifications of the property based on the items checked on the cards. You will encounter one residential PRC (PRC-2) on your exam. An example of a PRC-2, formatted in the same manner as the exam, is found on Page 6-47.

If you have any questions, please refer to the answer key in the back of this booklet.

Residential Schedules

Base cost schedule — wood frame construction											
SFGA	Stories					SFGA	Stories				
	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.		1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	\$15,800	\$19,950	\$16,000	\$21,300	\$26,800	1,600	\$94,200	\$132,350	\$111,200	\$147,050	\$200,650
25	18,550	23,500	18,900	25,150	31,800	25	95,250	133,950	112,600	148,900	203,200
50	21,050	26,800	21,600	28,750	36,450	50	96,350	135,550	113,950	150,700	205,750
75	23,400	29,950	24,100	32,100	40,850	75	97,450	137,200	115,350	152,500	208,300
200	25,600	32,850	26,550	35,300	45,050	1,700	98,550	138,800	116,750	154,350	210,900
25	27,700	35,650	28,850	38,400	49,100	25	99,650	140,450	118,150	156,150	213,450
50	29,650	38,350	31,050	41,300	53,000	50	100,800	142,100	119,550	158,000	216,050
75	31,550	40,900	33,150	44,150	56,750	75	101,900	143,750	120,950	159,850	218,600
300	33,350	43,400	35,200	46,850	60,400	1,800	103,050	145,400	122,350	161,750	221,200
25	35,100	45,750	37,200	49,500	63,950	25	104,200	147,050	123,800	163,600	223,850
50	36,800	48,100	39,150	52,050	67,400	50	105,350	148,700	125,200	165,500	226,450
75	38,400	50,300	41,000	54,500	70,750	75	106,500	150,400	126,650	167,350	229,050
400	39,950	52,500	42,850	56,950	74,050	1,900	107,650	152,100	128,100	169,250	231,700
25	41,450	54,600	44,600	59,300	77,250	25	108,850	153,800	129,550	171,150	234,350
50	42,950	56,700	46,350	61,600	80,400	50	110,000	155,500	131,000	173,100	237,050
75	44,350	58,700	48,050	63,850	83,500	75	111,200	157,200	132,450	175,000	239,700
500	45,750	60,700	49,700	66,050	86,550	2,000	112,400	158,950	133,950	176,950	242,400
25	47,100	62,650	51,350	68,200	89,500	25	113,600	160,700	135,450	178,900	245,100
50	48,450	64,550	52,950	70,350	92,450	50	114,850	162,450	136,900	180,850	247,800
75	49,750	66,400	54,550	72,450	95,350	75	116,050	164,200	138,400	182,850	250,500
600	51,000	68,250	56,100	74,500	98,250	2,100	117,300	166,000	139,950	184,800	253,250
25	52,250	70,050	57,650	76,550	101,050	25	118,550	167,800	141,450	186,800	256,000
50	53,500	71,850	59,150	78,550	103,850	50	119,800	169,600	143,000	188,800	258,750
75	54,700	73,600	60,650	80,500	106,600	75	121,100	171,400	144,500	190,850	261,550
700	55,850	75,300	62,150	82,450	109,350	2,200	122,350	173,200	146,050	192,850	264,300
25	57,050	77,050	63,600	84,400	112,050	25	123,650	175,050	147,600	194,900	267,150
50	58,200	78,750	65,050	86,300	114,750	50	124,950	176,900	149,200	196,950	269,950
75	59,350	80,400	66,500	88,200	117,400	75	126,300	178,750	150,750	199,050	272,750
800	60,450	82,050	67,900	90,100	120,050	2,300	127,600	180,600	152,350	201,100	275,600
25	61,550	83,700	69,300	91,950	122,650	25	128,950	182,500	153,950	203,200	278,500
50	62,650	85,350	70,700	93,800	125,250	50	130,300	184,400	155,550	205,300	281,350
75	63,750	86,950	72,100	95,650	127,850	75	131,650	186,300	157,150	207,450	284,250
900	64,850	88,550	73,500	97,450	130,450	2,400	133,000	188,250	158,750	209,550	287,150
25	65,900	90,150	74,850	99,250	133,000	25	134,400	190,200	160,400	211,700	290,050
50	67,000	91,750	76,250	101,050	135,550	50	135,800	192,150	162,050	213,850	293,000
75	68,050	93,350	77,600	102,850	138,100	75	137,200	194,100	163,700	216,050	295,950
1,000	69,100	94,900	78,950	104,650	140,650	2,500	138,600	196,100	165,350	218,250	298,900
25	70,150	96,500	80,300	106,450	143,150	25	140,050	198,050	167,050	220,450	301,900
50	71,200	98,050	81,650	108,200	145,650	50	141,500	200,100	168,750	222,650	304,900
75	72,250	99,600	83,000	109,950	148,150	75	142,950	202,100	170,450	224,900	307,950
1,100	73,250	101,150	84,350	111,750	150,700	2,600	144,400	204,150	172,150	227,150	310,950
25	74,300	102,700	85,650	113,500	153,200	25	145,900	206,200	173,850	229,400	314,000
50	75,350	104,250	87,000	115,250	155,650	50	147,400	208,250	175,600	231,700	317,100
75	76,350	105,800	88,350	117,000	158,150	75	148,900	210,350	177,350	233,950	320,150
1,200	77,400	107,350	89,700	118,750	160,650	2,700	150,450	212,450	179,100	236,300	323,250
25	78,450	108,900	91,000	120,500	163,150	25	151,950	214,550	180,850	238,600	326,400
50	79,450	110,450	92,350	122,250	165,600	50	153,500	216,650	182,650	240,950	329,500
75	80,500	112,000	93,650	124,000	168,100	75	155,050	218,800	184,450	243,300	332,650
1,300	81,550	113,550	95,000	125,800	170,600	2,800	156,650	220,950	186,250	245,650	335,850
25	82,550	115,100	96,350	127,550	173,100	25	158,250	223,150	188,050	248,050	339,050
50	83,600	116,650	97,700	129,300	175,550	50	159,850	225,350	189,900	250,450	342,250
75	84,650	118,200	99,000	131,050	178,050	75	161,450	227,550	191,700	252,850	345,450
1,400	85,700	119,750	100,350	132,800	180,550	2,900	163,050	229,750	193,550	255,300	348,700
25	86,750	121,300	101,700	134,600	183,050	25	164,700	232,000	195,450	257,750	351,950
50	87,800	122,900	103,050	136,350	185,550	50	166,350	234,250	197,300	260,200	355,250
75	88,850	124,450	104,400	138,100	188,050	75	168,050	236,500	199,200	262,700	358,550
1,500	89,900	126,000	105,750	139,900	190,550	3,000	169,750	238,800	201,100	265,200	361,850
25	90,950	127,600	107,100	141,700	193,100	OVER	56.60/SF	79.60/SF	67.05/SF	88.40/SF	120.60/SF
50	92,050	129,200	108,450	143,450	195,600						
75	93,100	130,750	109,850	145,250	198,150						

Base price schedules include normal construction features, such as foundation, basement and basement walls, all exteriors walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.

Residential schedules

Base cost schedule — masonry construction											
SFGA	Stories					SFGA	Stories				
	1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.		1 Story & bsmt.	1½ Story & bsmt.	Split level	2 Story & bsmt.	3 Story & bsmt.
100	\$17,000	\$21,600	\$17,900	\$24,350	\$29,800	1,600	\$101,300	\$143,250	\$118,850	\$161,500	\$223,100
25	19,950	25,450	21,100	28,700	35,350	25	102,500	145,000	120,250	163,450	225,900
50	22,650	29,050	24,100	32,700	40,500	50	103,650	146,750	121,700	165,400	228,750
75	25,150	32,400	26,850	36,500	45,400	75	104,850	148,500	123,150	167,350	231,600
200	27,550	35,550	29,500	40,100	50,100	1,700	106,000	150,250	124,600	169,350	234,400
25	29,800	38,600	32,000	43,500	54,600	25	107,200	152,000	126,100	171,350	237,300
50	31,900	41,500	34,400	46,800	58,900	50	108,400	153,800	127,550	173,350	240,150
75	33,950	44,300	36,750	49,900	63,100	75	109,650	155,550	129,050	175,350	243,050
300	35,900	46,950	38,950	52,950	67,150	1,800	110,850	157,350	130,500	177,350	245,900
25	37,750	49,550	41,100	55,850	71,100	25	112,050	159,150	132,000	179,400	248,800
50	39,550	52,050	43,150	58,650	74,900	50	113,300	160,950	133,500	181,450	251,750
75	41,300	54,450	45,200	61,400	78,650	75	114,550	162,800	135,000	183,500	254,650
400	43,000	56,850	47,150	64,050	82,300	1,900	115,800	164,600	136,550	185,550	257,600
25	44,600	59,100	49,050	66,650	85,900	25	117,050	166,450	138,050	187,650	260,550
50	46,200	61,350	50,900	69,150	89,400	50	118,350	168,300	139,600	189,700	263,500
75	47,700	63,550	52,700	71,650	92,800	75	119,650	170,150	141,150	191,800	266,450
500	49,200	65,700	54,500	74,050	96,200	2,000	120,900	172,050	142,700	193,950	269,450
25	50,700	67,800	56,250	76,400	99,500	25	122,200	173,950	144,250	196,050	272,450
50	52,100	69,850	57,950	78,750	102,800	50	123,550	175,850	145,850	198,200	275,450
75	53,500	71,850	59,600	81,000	106,000	75	124,850	177,750	147,450	200,350	278,500
600	54,850	73,850	61,250	83,250	109,200	2,100	126,200	179,650	149,000	202,500	281,550
25	56,200	75,800	62,900	85,450	112,350	25	127,550	181,600	150,650	204,700	284,600
50	57,550	77,750	64,500	87,650	115,450	50	128,900	183,550	152,250	206,900	287,650
75	58,800	79,650	66,050	89,800	118,500	75	130,250	185,500	153,850	209,100	290,750
700	60,100	81,500	67,600	91,900	121,550	2,200	131,650	187,500	155,500	211,300	293,850
25	61,350	83,400	69,150	94,000	124,550	25	133,000	189,450	157,150	213,550	296,950
50	62,600	85,200	70,700	96,050	127,550	50	134,450	191,450	158,800	215,800	300,100
75	63,800	87,050	72,200	98,100	130,500	75	135,850	193,500	160,500	218,100	303,250
800	65,050	88,800	73,650	100,100	133,450	2,300	137,250	195,500	162,150	220,350	306,400
25	66,200	90,600	75,150	102,150	136,350	25	138,700	197,550	163,850	222,650	309,600
50	67,400	92,350	76,600	104,100	139,250	50	140,150	199,600	165,550	225,000	312,750
75	68,600	94,150	78,050	106,100	142,150	75	141,600	201,650	167,250	227,300	316,000
900	69,750	95,850	79,500	108,050	145,000	2,400	143,100	203,750	169,000	229,650	319,200
25	70,900	97,600	80,950	110,000	147,850	25	144,600	205,850	170,750	232,050	322,450
50	72,050	99,300	82,400	111,950	150,700	50	146,100	207,950	172,500	234,400	325,700
75	73,200	101,050	83,800	113,900	153,500	75	147,600	210,100	174,250	236,800	329,000
1,000	74,300	102,750	85,200	115,800	156,350	2,500	149,100	212,250	176,050	239,200	332,300
25	75,450	104,450	86,650	117,700	159,150	25	150,650	214,400	177,800	241,650	335,600
50	76,550	106,150	88,050	119,650	161,950	50	152,200	216,550	179,650	244,100	338,950
75	77,700	107,800	89,450	121,550	164,700	75	153,750	218,750	181,450	246,550	342,300
1,100	78,800	109,500	90,800	123,450	167,500	2,600	155,350	220,950	183,250	249,050	345,700
25	79,950	111,200	92,200	125,300	170,300	25	156,950	223,200	185,100	251,550	349,050
50	81,050	112,850	93,600	127,200	173,050	50	158,550	225,400	186,950	254,100	352,500
75	82,150	114,550	95,000	129,100	175,800	75	160,200	227,650	188,850	256,600	355,900
1,200	83,250	116,200	96,400	131,000	178,600	2,700	161,800	229,950	190,700	259,150	359,350
25	84,350	117,900	97,750	132,850	181,350	25	163,450	232,200	192,600	261,750	362,850
50	85,500	119,550	99,150	134,750	184,100	50	165,150	234,500	194,500	264,350	366,300
75	86,600	121,250	100,550	136,650	186,900	75	166,800	236,850	196,450	266,950	369,800
1,300	87,700	122,900	101,950	138,550	189,650	2,800	168,500	239,150	198,400	269,600	373,350
25	88,800	124,600	103,350	140,400	192,400	25	170,200	241,500	200,350	272,250	376,900
50	89,950	126,250	104,700	142,300	195,200	50	171,950	243,900	202,300	274,900	380,450
75	91,050	127,950	106,100	144,200	197,950	75	173,650	246,250	204,250	277,600	384,050
1,400	92,200	129,600	107,500	146,100	200,700	2,900	175,400	248,650	206,250	280,300	387,650
25	93,300	131,300	108,900	148,000	203,500	25	177,200	251,100	208,250	283,000	391,300
50	94,450	133,000	110,300	149,900	206,300	50	178,950	253,550	210,300	285,750	394,900
75	95,550	134,700	111,750	151,850	209,050	75	180,750	256,000	212,300	288,550	398,600
1,500	96,700	136,400	113,150	153,750	211,850	3,000	182,550	258,450	214,350	291,300	402,300
25	97,850	138,100	114,550	155,650	214,650	OVER	60.85/SF	86.15/SF	71.45/SF	97.10/SF	134.10/SF
50	99,000	139,800	115,950	157,600	217,450	Base price schedules include normal construction features such as foundation, basement and basement walls, all exteriors walls, floors, roof, interior finish, central heating, lighting, plumbing (five fixtures), and average landscaping.					
75	100,150	141,550	117,400	159,550	220,250						

Schedule combining — frame/masonry (-)											
Frame						Masonry					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story	SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
100	\$10,550	\$10,650	\$10,650	\$10,750	\$10,950	100	\$11,900	\$12,050	\$12,050	\$12,200	\$12,400
200	11,350	11,550	11,500	11,700	12,000	200	12,900	13,150	13,100	13,400	13,800
300	11,950	12,200	12,150	12,400	12,900	300	13,700	14,000	13,950	14,350	14,900
400	12,450	12,800	12,750	13,050	13,650	400	14,350	14,750	14,700	15,150	15,850
500	12,900	13,350	13,250	13,600	14,350	500	14,900	15,400	15,350	15,850	16,700
600	13,300	13,800	13,700	14,150	14,950	600	15,400	16,000	15,950	16,500	17,500
700	13,700	14,250	14,150	14,600	15,550	700	15,900	16,550	16,500	17,150	18,250
800	14,050	14,650	14,600	15,100	16,150	800	16,350	17,100	17,000	17,700	19,000
900	14,400	15,050	15,000	15,500	16,700	900	16,800	17,600	17,500	18,250	19,650
1,000	14,700	15,450	15,350	15,950	17,200	1,000	17,200	18,100	18,000	18,800	20,350
1,100	15,000	15,800	15,750	16,350	17,700	1,100	17,550	18,550	18,450	19,300	21,000
1,200	15,300	16,150	16,100	16,750	18,200	1,200	17,950	19,000	18,900	19,800	21,600
1,300	15,600	16,550	16,450	17,150	18,700	1,300	18,300	19,450	19,300	20,300	22,250
1,400	15,900	16,900	16,800	17,550	19,200	1,400	18,700	19,900	19,750	20,750	22,850
1,500	16,200	17,250	17,150	17,950	19,700	1,500	19,050	20,300	20,200	21,250	23,500
1,600	16,450	17,550	17,500	18,300	20,200	1,600	19,400	20,750	20,600	21,700	24,100
1,700	16,750	17,900	17,850	18,700	20,650	1,700	19,750	21,200	21,050	22,200	24,700
1,800	17,050	18,250	18,200	19,100	21,150	1,800	20,100	21,600	21,450	22,700	25,300
1,900	17,300	18,600	18,550	19,450	21,650	1,900	20,450	22,050	21,850	23,150	25,950
2,000	17,600	18,950	18,900	19,850	22,150	2,000	20,850	22,450	22,300	23,650	26,550
2,100	17,900	19,300	19,250	20,250	22,650	2,100	21,200	22,900	22,700	24,150	27,150
2,200	18,150	19,650	19,600	20,650	23,150	2,200	21,550	23,350	23,150	24,600	27,800
2,300	18,450	20,000	19,950	21,050	23,650	2,300	21,900	23,800	23,600	25,100	28,450
2,400	18,750	20,400	20,300	21,450	24,150	2,400	22,300	24,250	24,050	25,600	29,050
2,500	19,050	20,750	20,650	21,850	24,700	2,500	22,650	24,700	24,450	26,150	29,700
2,600	19,400	21,100	21,050	22,250	25,200	2,600	23,050	25,150	24,900	26,650	30,350
2,700	19,700	21,500	21,400	22,700	25,750	2,700	23,450	25,600	25,400	27,200	31,050
2,800	20,000	21,900	21,800	23,100	26,300	2,800	23,800	26,100	25,850	27,700	31,700
2,900	20,350	22,250	22,150	23,550	26,850	2,900	24,200	26,550	26,300	28,250	32,400
3,000	20,650	22,650	22,550	24,000	27,400	3,000	24,600	27,050	26,800	28,800	33,100

Log homes Base cost per SFFA						
SFFA	1 Story		1½ Story		2 Story	
	6" logs	8" logs	6" logs	8" logs	6" logs	8" logs
600	\$114.20	\$113.25	—	—	—	—
800	103.20	102.35	—	—	—	—
1,000	94.60	93.85	\$104.45	\$101.80	\$114.30	\$109.80
1,200	87.85	87.15	91.05	92.80	94.25	98.45
1,400	82.40	81.80	86.15	87.70	89.85	93.65
1,600	77.80	77.20	82.25	83.90	86.70	90.60
1,800	75.50	74.95	79.35	80.95	83.15	86.95
2,000	73.95	73.40	76.90	78.30	79.90	83.15
2,200	71.40	70.95	74.45	75.95	77.50	80.95
2,400	68.90	68.45	72.05	73.50	75.20	78.50
2,600	66.90	66.40	69.90	71.20	72.90	76.00
2,800	64.90	64.30	67.60	68.85	70.25	73.40
3,000	63.85	63.30	65.75	67.05	67.65	70.80
3,200	62.80	62.30	64.80	66.05	66.75	69.85
3,400	—	—	—	—	65.85	68.90
3,800	—	—	—	—	64.05	66.80
Base price schedules include normal construction features, such as a basement, post and beam frame, log exterior walls, floors, asphalt shingled roof, drywall interior finish, forced warm air central heating, lighting, and plumbing (five fixtures).						

Plumbing (±)		
Per fixture less than standard	Deduct	\$1,465
Per fixture greater than standard	Add	\$1,465

Quality	
Grade	Factor
AA	225%
A	150%
B	122%
C	100%
D	82%
E	50%

Residential schedules

No heat (-)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$2,000	\$2,200	\$2,400	\$2,400	\$2,800
400	2,450	2,950	3,350	3,350	4,400
600	2,900	3,650	4,550	4,550	6,000
800	3,400	4,650	5,750	5,750	7,300
1,000	3,850	5,350	6,650	6,650	8,600
1,200	4,650	6,400	7,550	7,550	9,900
1,400	5,100	7,100	8,450	8,450	11,200
1,600	5,850	7,800	9,400	9,400	12,500
1,800	6,350	8,500	10,300	10,300	13,800
2,000	6,800	9,200	11,200	11,200	15,100
2,200	7,250	9,950	12,100	12,100	16,400
2,400	7,750	10,650	13,000	13,000	17,700
2,600	8,200	11,350	13,900	13,900	19,000
2,800	8,700	12,050	14,800	14,800	20,300
3,000	9,150	12,800	15,750	15,750	21,600

Partial masonry trim (+) Per SF of surface area				
Quality	A	B	C	D
Brick	\$17.05	\$14.80	\$12.50	\$10.10
Stone	35.85	31.15	26.40	21.50
Artificial stone	19.60	15.70	11.80	7.80

Paving (+)	
Crushed stone	\$0.40/SF
Concrete	3.10/SF
Asphalt	2.05/SF

Central air conditioning (+)					
SFGA	1 Story	1 ½ Story	Split	2 Story	3 Story
200	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050
400	2,050	2,050	2,050	2,050	2,200
600	2,050	2,200	2,200	2,200	2,650
800	2,050	2,350	2,350	2,650	3,200
1,000	2,200	2,650	2,650	2,800	4,250
1,200	2,200	2,800	2,800	3,200	5,250
1,400	2,350	2,950	2,950	4,250	5,600
1,600	2,650	4,250	4,250	4,250	6,000
1,800	2,650	4,250	4,250	5,250	7,200
2,000	2,800	5,250	5,250	5,400	8,400
2,200	3,200	5,600	5,600	5,750	8,650
2,400	3,200	5,600	5,600	6,000	9,000
2,600	3,200	5,750	5,750	6,450	11,000
2,800	4,250	6,000	6,000	7,200	11,450
3,000	4,250	6,000	6,000	8,400	12,600
Note: When using Schedule Combining with houses that have central air conditioning, subtract an additional \$1,600.					

Foundation (-)		
SFGA	Crawl	Slab
100	\$750	\$1,450
200	1,500	2,950
300	2,300	4,400
400	3,050	5,900
500	3,800	7,350
600	4,550	8,800
700	5,300	10,300
800	6,100	11,750
900	6,850	13,250
1,000	7,600	14,700
1,100	8,350	16,150
1,200	9,100	17,650
1,300	9,900	19,100
1,400	10,650	20,600
1,500	11,400	22,050
OVER	7.60/SF	14.70/SF

Note: Ordinarily there is no basement deduction for split-level construction. However, make a deduction of \$13.60 per SF of unfinished floor area for split-level construction in which the lower level is not finished.

Fireplace (+)				
Quality	A	B	C	D
Fireplace & stack	\$6,805	\$4,620	\$3,090	\$2,100
2nd fireplace on same stack	5,445	3,695	2,470	1,680

Finished basement (+) Per SF of finished floor area				
Quality	A	B	C	D
Recreation room	\$7.70	\$6.25	\$5.15	\$4.20
Living quarters	20.30	16.55	13.55	11.10

Stoop, decks, patios (+)	
Stoop-masonry	18.75/SF
Deck-wood	17.05/SF
Patio-concrete	3.10/SF
Patio-brick	14.65/SF

Residential schedules

Garages (+)		
SFGA	Frame	Masonry
140	\$2,350	\$2,850
160	2,700	3,250
180	3,000	3,700
200	3,350	4,100
220	3,700	4,500
240	4,000	4,900
260	4,350	5,300
280	4,700	5,750
300	5,050	6,150
320	5,350	6,550
340	5,700	6,950
360	6,050	7,350
380	6,350	7,750
400	6,700	8,200
420	7,050	8,600
440	7,350	9,000
460	7,700	9,400
480	8,050	9,800
500	8,400	10,250
520	8,700	10,650
540	9,050	11,050
560	9,400	11,450
580	9,700	11,850
OVER	16.75/SF	20.45/SF

Note: Price garages constructed as an integral part of the main structure as part of the finished dwelling, then deduct \$13.60 per square foot of garage area for on-grade and split-level construction.

Attic (+)			
SFGA	Unfinished	½ Finished	Finished
400	\$5,850	\$9,100	\$12,300
600	6,250	10,100	13,950
800	6,700	11,150	15,600
1,000	7,100	12,200	17,250
1,200	7,500	13,200	18,900
1,400	7,900	14,250	20,550
1,600	8,350	15,300	22,200
1,800	8,750	16,300	23,850
2,000	9,150	17,350	25,500
2,200	9,600	18,400	27,150
2,400	10,000	19,400	28,800
2,600	10,400	20,450	30,500
2,800	10,850	21,500	32,150
3,000	11,250	22,550	33,800

Porches (+)				
SFGA	OFF	EFP	OMP	EMP
12	\$950	\$1,400	\$1,000	\$1,800
16	1,000	1,500	1,100	1,900
20	1,050	1,650	1,200	2,050
30	1,250	1,950	1,400	2,400
40	1,400	2,250	1,650	2,700
60	1,700	2,800	2,100	3,400
80	2,050	3,400	2,600	4,050
100	2,350	4,000	3,050	4,750
125	2,750	4,700	3,600	5,550
150	3,150	5,450	4,200	6,400
175	3,550	6,200	4,750	7,250
200	3,950	6,900	5,350	8,050
250	5,200	8,400	6,700	9,950
300	6,000	9,850	7,850	11,600
350	6,800	11,350	9,000	13,300
400	7,600	12,800	10,150	14,950
450	8,450	14,250	11,300	16,650
OVER	18.80/SF	31.65/SF	25.10/SF	37.00/SF

Residential pools in ground (+)		
Price includes excavation, filtering system, pump, chlorinator, ladder, and diving board.		
SFSA	Concrete	Vinyl liner
300	\$21,900	\$18,000
450	27,100	20,100
525	28,700	21,900
650	32,100	23,800
800	36,400	26,100
1,000	40,600	30,500

Price permanent type above-ground pools at 50% of vinyl liner price.

Pool additions (+)		
Pool Heaters		
50MBTU		\$1,305
75MBTU		1,515
100MBTU		1,760

Note: Prices in this schedule represent pool costs. The extent to which a pool may enhance an individual property's market value is determined by the area or subdivision in which it is located. In certain areas, the presence of a swimming pool may even diminish the market value.

Residential schedules

Mobile home schedule											
Base costs includes average construction features, permanent inexpensive crawl space foundation, steps, plumbing (five fixtures), lighting, and central heating. Furniture is not included.											
WIDTH	40'	44'	48'	52'	56'	60'	64'	68'	72'	76'	80'
8'	\$19,250	\$20,950	\$22,650	\$24,350	\$26,000	\$27,600	\$29,250	\$30,850	\$32,400	\$34,000	\$35,550
12'	23,300	25,250	27,200	29,100	31,000	32,800	34,650	36,450	38,200	40,000	41,700
14'	24,700	26,800	28,850	30,900	32,900	34,850	36,800	38,750	40,650	42,550	44,400
16'	26,350	28,550	30,700	32,800	34,900	36,950	39,000	41,000	43,000	44,950	46,900
20'	41,900	44,950	47,900	50,750	53,550	56,250	58,900	61,550	64,100	66,600	69,100
24'	45,450	48,500	51,450	54,300	57,100	59,800	62,400	65,000	67,500	70,000	72,400
28'	48,700	51,800	54,700	57,550	60,300	62,950	65,550	68,100	70,550	72,950	75,350
32'	50,800	53,950	56,950	59,850	62,650	65,400	68,050	70,650	73,150	75,600	78,050

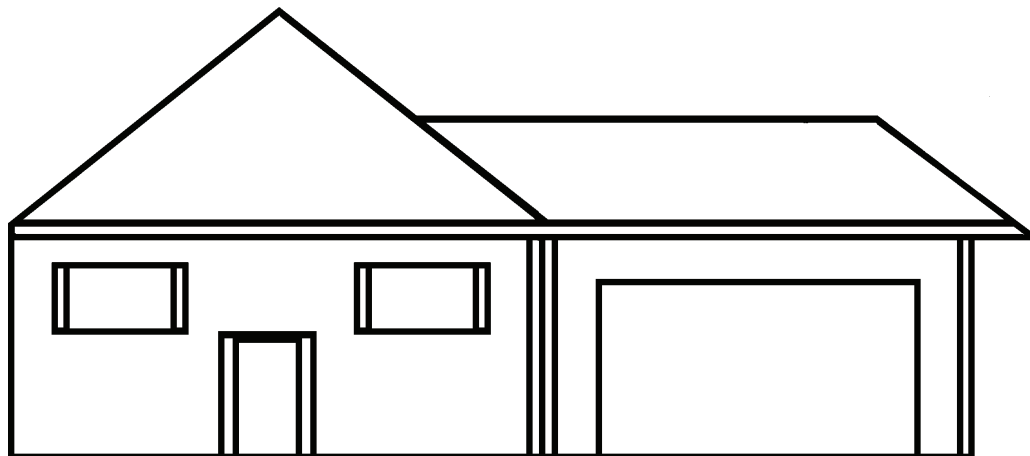
Mobile home REL Table											
Age	REL	Age	REL	Age	REL	Age	REL	Age	REL	Age	REL
1	87	4	69	7	58	10	50	13	44	16	40
2	80	5	65	8	55	11	48	14	43	17	39
3	74	6	61	9	52	12	46	15	41	18	38
										19	37
										20	36
										Over 20	35

Residential REL Table

Schedule A											Schedule B				
Age	Effective Age					Age	Effective Age					Eff. Age	REL	Eff. Age	REL
	E	G	A	P	U		E	G	A	P	U				
1	1	1	1	18	63	70	24	39	70	102	117	1	100	73	68
2	1	1	2	19	67	71	24	40	71	102	117	2	99	74	67
3	1	1	3	21	71	72	25	41	72	102	117	3	98	75	67
4	1	1	4	22	75	73	25	42	73	102	117	4	97	76	67
5	1	1	5	24	78	74	26	43	74	103	117	5	96	77	66
6	1	1	6	26	81	75	26	44	75	103	117	6	95	78	66
7	1	1	7	29	84	76	27	45	76	103	118	7	94	79	66
8	1	1	8	32	86	77	28	47	77	104	118	8	93	80	65
9	1	2	9	35	88	78	29	48	78	104	118	9	92	81	65
10	1	3	10	38	90	79	30	49	79	104	118	10	91	82	65
11	1	4	11	41	92	80	31	51	80	105	119	11	90	83	64
12	1	5	12	44	94	81	32	53	81	105	119	12	89	84	64
13	1	6	13	47	95	82	32	55	82	105	119	13	88	85	63
14	1	6	14	50	95	83	34	57	83	106	120	14	88	86	63
15	1	7	15	54	96	84	35	59	84	106	120	15	87	87	62
16	2	8	16	57	98	85	36	62	85	107	121	16	86	88	62
17	2	8	17	60	98	86	37	64	86	107	121	17	86	89	61
18	3	9	18	63	99	87	39	66	87	108	121	18	85	90	61
19	4	10	19	66	100	88	41	68	88	108	122	19	84	91	60
20	4	10	20	69	101	89	43	70	89	109	122	20	84	92	60
21	5	11	21	72	102	90	45	72	90	109	122	21	83	93	59
22	6	12	22	74	103	91	47	74	91	110	123	22	82	94	59
23	6	12	23	76	103	92	49	76	92	110	123	23	82	95	58
24	7	13	24	78	104	93	52	78	93	111	124	24	81	96	57
25	7	14	25	79	104	94	54	79	94	111	124	25	81	97	57
26	8	15	26	81	105	95	58	81	95	112	125	26	80	98	56
27	8	15	27	82	105	96	61	83	96	113	125	27	80	99	55
28	9	16	28	83	106	97	63	84	97	113	126	28	79	100	54
29	9	17	29	84	106	98	67	85	98	114	126	29	79	101	54
30	9	17	30	84	106	99	71	87	99	115	127	30	79	102	53
31	10	18	31	85	107	100	74	89	100	116	128	31	78	103	52
32	10	18	32	86	107	101	76	90	101	116	128	32	78	104	51
33	11	19	33	87	108	102	78	92	102	117	129	33	77	105	50
34	11	20	34	88	108	103	81	94	103	118	130	34	77	106	49
35	11	20	35	88	108	104	83	95	104	118	130	35	77	107	48
36	12	21	36	89	109	105	85	97	105	119	131	36	76	108	47
37	12	21	37	90	109	106	87	98	106	120	132	37	76	109	46
38	12	21	38	90	109	107	89	99	107	121	133	38	76	110	45
39	13	22	39	91	110	108	91	101	108	121	133	39	75	111	44
40	13	22	40	91	110	109	93	102	109	122	134	40	75	112	43
41	14	23	41	92	110	110	95	103	110	123	135	41	75	113	42
42	14	23	42	92	110	111	97	104	111	124	136	42	75	114	41
43	15	24	43	93	111	112	98	105	112	125	137	43	74	115	40
44	15	24	44	93	111	113	99	106	113	126	138	44	74	116	39
45	15	25	45	94	111	114	101	107	114	126	138	45	74	117	38
46	15	25	46	94	111	115	102	108	115	127	139	46	74	118	36
47	16	26	47	95	112	116	103	109	116	128	140	47	73	119	35
48	16	26	48	95	112	117	104	110	117	129	141	48	73	120	34
49	17	27	49	95	112	118	106	112	118	130	142	49	73	121	33
50	17	27	50	95	112	119	107	113	119	131	143	50	73	122	31
51	18	28	51	96	113	120	108	114	120	132	143	51	72	123	30
52	18	28	52	96	113	121	109	115	121	133	143	52	72	124	29
53	18	29	53	97	113	122	111	117	122	134	143	53	72	125	28
54	18	30	54	97	113	123	112	117	123	135	143	54	72	126	26
55	18	30	55	97	113	124	113	118	124	136	143	55	72	127	25
56	19	31	56	98	114	125	114	119	125	137	143	56	71	128	24
57	19	31	57	98	114	126	116	121	126	138	143	57	71	129	23
58	20	32	58	98	114	127	117	121	127	139	143	58	71	130	21
59	20	32	59	98	114	128	118	122	128	139	143	59	71	131	20
60	20	32	60	98	114	129	118	123	129	139	143	60	71	132	19
61	21	33	61	99	115	130	120	125	130	139	143	61	70	133	18
62	21	33	62	99	115	131	121	125	131	139	143	62	70	134	16
63	21	34	63	99	115	132	122	126	132	139	143	63	70	135	15
64	21	35	64	99	115	133	122	127	133	139	143	64	70	136	14
65	21	35	65	99	115	134	124	129	134	139	143	65	70	137	13
66	22	36	66	100	116	135	125	129	135	139	143	66	69	138	11
67	22	37	67	100	116	136	126	130	135	139	143	67	69	139	10
68	23	37	68	101	116	137	126	131	135	139	143	68	69	140	9
69	23	38	69	101	116	138	127	131	135	139	143	69	69	141	8
												70	68	142	7
												71	68	143	5
												72	68		
See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.															

See the Property Record Card section of the Illinois Real Property Appraisal Manual to use these tables.

Exercise 6-1



Cost factor _____

PIN 03-10-108-011-0040

Lot size 80' x 120' **Lot value** \$25,000

The lot is improved with a 15-year old 1-story frame dwelling — attached frame garage — housing 5 rooms, including 2 bedrooms.

Foundation	8" concrete block on spread footing
Heating	Gas fired forced air — central air conditioning
Plumbing	Standard 5, plus a half bath — average grade fixtures and galvanized piping
Exterior walls	2" x 4" stud frame, 16" on-center (o.c.), with 5/8" lap siding, painted — 1 3/4" doors — 1 3/8" double-hung windows — 288 SF of face brick trim, grade C
Roof	Asphalt shingles over 1/2" plywood sheathing with 2" x 6" rafters, 24" o.c.
Floors	Basement - 4" concrete — 1st floor - 2" x 8" joist, 16" o.c. — vinyl asbestos tile and average grade carpet with pad
Interior finish	1/2" drywall — pine doors and trim throughout — average grade kitchen cabinets
Miscellaneous	Average quality electrical fixtures — average quality workmanship — 12' x 20' concrete drive and a 4' x 10' concrete walk
CDU	Average
Quality grade	_____

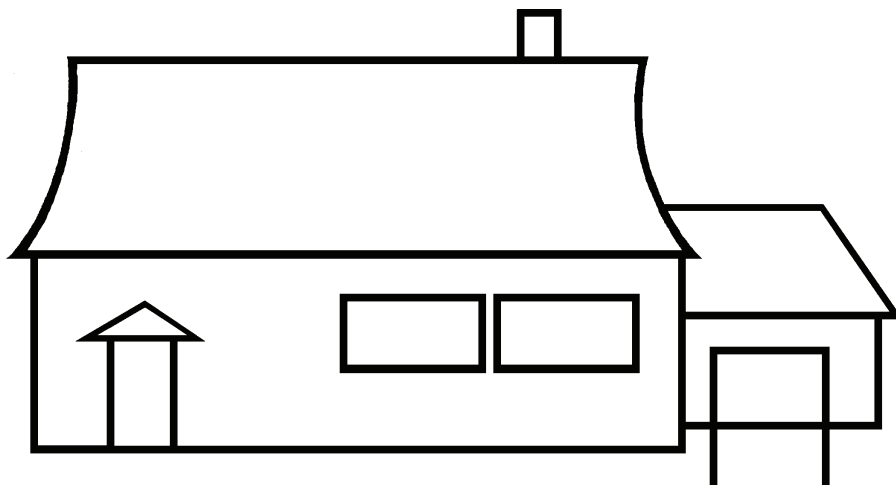
Complete the PRC-2 on the opposite page.

6-41

PRC-2 (R-1/00) (opposite PRC-1)

[illegible]

Exercise 6-2



Cost factor _____

PIN 04-01-406-002-0040

Lot size 80' x 150' **Lot value** \$32,000

The lot is improved with a 65-year old, 2-story frame dwelling on a crawl — housing 8 rooms, including 4 bedrooms — detached frame garage.

Foundation	8" concrete block wall
Heating	Warm air system
Plumbing	Standard 5 with cheap grade fixtures and galvanized iron piping
Exterior walls	Painted 1/2" lap siding over 2" x 4" studs, 16" o.c. — 1 3/8" pine doors — 1 3/8" pine double-hung windows
Roof	Asphalt shingles, 2" x 4" rafters, 24" o.c. with 3/8" plywood sheathing
Floors	1st and 2nd floors - 2" x 8" joist, 16" o.c. — cheap grade tile and soft wood floors
Interior finish	3/8" plaster board — cheap pine doors and trim throughout — cheap kitchen cabinets
Miscellaneous	Poor quality electrical fixtures — lack of electric outlets — below average workmanship — 8' x 100' crushed stone drive
CDU	Poor
Quality grade	_____

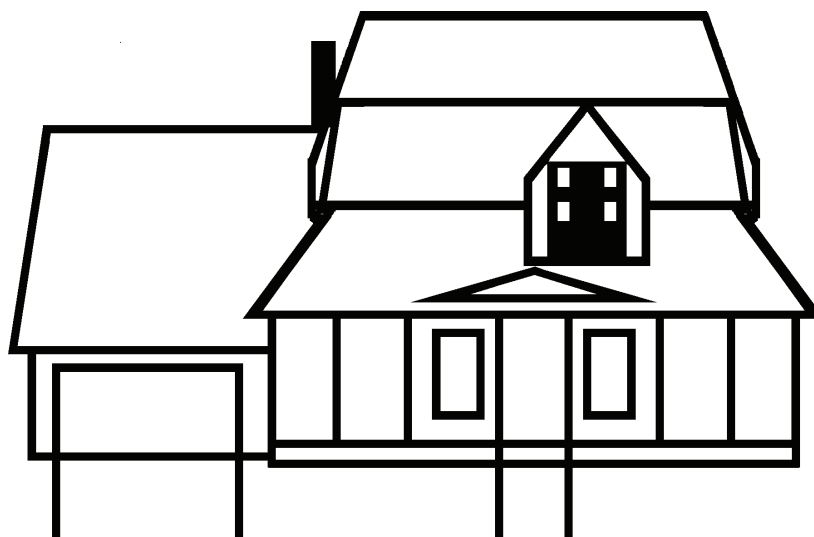
Complete the PRC-2 on the opposite page.

6-43

Unit 6: Mass Appraisal and Residential Square Foot Schedules
PTAX-1-T — Township Assessor — Introductory Course

PRC-2 (R-1/00) (opposite PRC-1)

Exercise 6-3



Cost factor _____

PIN 03-33-333-009-0040

Lot size 80' x 120' **Lot value** \$24,000

The lot is improved with a 56-year old 1 1/2-story frame dwelling — attached frame garage — housing 6 rooms, including 3 bedrooms.

Foundation	8" concrete block walls with concrete footing
Heating	Gas fired forced air — central air conditioning
Plumbing	Standard 5, plus an additional full bath and a half bath — average grade fixtures and galvanized piping
Exterior walls	2" x 4" stud frame, 16" o.c. — with 5/8" hard board siding, painted — 1 3/4" doors — 1 3/8" double-hung windows
Roof	Gambrel with 2" x 6" rafters, 24" o.c. — 1/2" plywood sheathing and asphalt shingles
Floors	Basement - 4" concrete, 800 SF tile, 1st and 2nd floors - 2" x 8" joist, 16" o.c.- sanded maple and some asbestos tile and carpeting
Interior finish	Lath and plaster — pine doors and trim throughout — average grade kitchen cabinets
Miscellaneous	Average quality electrical fixtures — average quality workmanship — 10' x 30' asphalt drive, 4' x 20' concrete walk, and a 800 SF, finished basement, used as recreation, grade C
CDU	Good

Quality grade _____

Complete the PRC-2 on the opposite page.

6-45

Unit 6: Mass Appraisal and Residential Square Foot Schedules
PTAX-1-T — Township Assessor — Introductory Course

PRC-2 (R-1/00) (opposite PRC-1)

You will encounter one residential PRC (PRC-2) on your exam that does not have any narrative. One of the purposes is to figure out the description of the property by the boxes that have been checked. An example of a PRC-2, in the same format, is on the opposite page.

[illegible]

Summary

The purpose of **mass appraisal** is to produce equitable and efficient appraisals of all property in a jurisdiction for *ad valorem* tax purposes.

Mass appraisal systems provide quickly obtainable value estimates with reasonable substantiation in the records. A mass appraisal system should incorporate all three approaches to value, but most systems are primarily based on the cost approach.

The **IRPAM** is designed for mass appraisal.

A cost factor is designed to adjust the IRPAM **replacement cost new (RCN)** value to reflect the local cost of labor and materials.

The **quality grade** represents quality of construction, workmanship, and material used in a project. The quality of workmanship and materials can greatly affect cost.

To determine a **design factor**, the assessor has to determine the percentage increase, or decrease, in cost due to the design features. The design factor is handled in the same manner as a quality grade factor; it is assigned to individual properties and should remain unchanged during the life of the structure.

The **remaining economic life (REL) factor** is applied to the true RCN to arrive at the full market value, which then reflects the adjustment made for depreciation.

Unit 6

Review questions

- 1 What type of quality does the quality grade factor “D” represent and what is the factor applied from the schedules?

- 2 A local assessor notices that an improvement has been greatly neglected and its physical condition is extremely poor. He or she notes that this particular improvement was originally built with excellent materials and workmanship. Which one of the following will the assessor adjust?
_____ Cost
_____ Quality grade
_____ CDU rating used to determine the REL factor
- 3 Quality grade refers to the

- 4 T or F You need to make an adjustment if an improvement has 5 plumbing fixtures.
- 5 T or F A frame house of 1000 square feet on a slab will not have an adjustment for a basement.
- 6 T or F All detached garages are calculated using the **Summary of Other Buildings** section on the PRC.
- 7 T or F PRC-2 is used for calculating land values.
- 8 T or F The quality grade is used to determine a REL factor.
- 9 T or F To compute the value for an enclosed frame porch of 60 square feet and an enclosed frame porch of 40 square feet, you should add the square footage of the porches together and price out a porch of 100 square feet from the cost tables.

Unit 7

Land Valuation

This unit covers land valuation using the front foot method, the square foot method, and the site method.

The purpose of this unit is to provide a basic understanding of calculating land values using the front foot method, the square foot method, the site method, and lot depth tables.

Learning objectives

After completing the assigned readings, you should be able to

- explain the basic methods for valuing land,
- define the front foot method of valuing land,
- explain the use of a standard depth table,
- use a standard depth table to arrive at a value,
- define the square foot method of valuing land, and
- define the site method of valuing land.



Terms and concepts

Front foot value

Square foot value

Site value

Depth factor

“4-3-2-1 Theory”

“65-35 Rule”

Unit value

Land valuation

The assessor is responsible for placing a value on both land and improvements for each parcel of property located in the jurisdiction.

A number of principles are involved in land valuation. Land is valued as vacant and at its highest and best use, meaning the use that will bring the greatest net return to the property over a reasonable period of time.

Highest and best use must be

Legal — Use complies with zoning laws, not unlawful, *etc.*

Probable or physically possible — Use is reasonable, not speculative.

Economically feasible — Use is in demand, profitable.

Land and **site** have different meanings. Land is considered to be raw land without amenities, such as streets and utilities. Site is defined as a parcel that has been made ready for its intended purpose.

When valuing residential land, the assessor must first determine the most appropriate unit of value to be used in a particular area. The three most common units of value are

- 1 **Front foot value** — the amount of frontage is the most significant factor in determining value.
- 2 **Square foot value** — the size is the most significant factor in determining value and is also used to value irregular shaped lots.
- 3 **Site value** — the location is the most significant factor in determining value.

In some situations, especially when rural residential land is being valued, the per acre amount could be the most appropriate unit of value.

The assessor must analyze the market to support the unit of value to be used. **Unit value** is determined by dividing the selling price of vacant land by the number

of units, arriving at a \$ per unit value. For example, the selling price for a lot is \$24,000. The lot is 80' x 150'. 80' is the dimension of the frontage, the lot contains 12,000 square feet.

$$\frac{\$24,000}{80'} = \$300/\text{FF} \quad \frac{\$24,000}{12,000 \text{ SF}} = \$2/\text{SF} \quad \$24,000 = \text{site value}$$

To decide the most appropriate unit of value to be used, the assessor must determine which unit of value is the most consistent, or which reflects the least percent of deviation. The unit of value with the least percentage of deviation becomes the most appropriate unit of value, the median becomes the base unit of value to be used in the mass appraisal process.

Adjustments to the basic unit value **must be** supported by the market. Adjustments may be required for

- time,
- specific physical characteristics, *e.g.*, trees, landscaping, topography, and
- location, whether a corner or interior lot.

A **front foot** (FF) is a strip of land one foot wide, running from the front of the lot to the rear. When using the front foot method, all front feet that front a street, lake, *etc.*, and run the entire depth of the lot have the same value.

When using the front foot unit method to value residential property, some adjustments to the standard front foot value may be necessary, since not all lots have the same dimensions. The front foot value takes the width into consideration. A **depth factor** adjusts the front foot value, taking into account the differences in depth between the subject lot and the standard lot of the neighborhood.

Depth tables are based on the assumption that the front portion of the lot is more valuable, on a unit basis, than the rear portion. Most depth tables are based on the “4-3-2-1 Theory,” which states

- the first 25 percent of depth of a lot represents 40 percent of the total lot value,

- the second 25 percent of depth represents 30 percent of the lot value,
- the third 25 percent of depth represents 20 percent of value, and
- the fourth 25 percent represents the final 10 percent of the lot value.

The **Illinois Real Property Appraisal Manual (IRPAM)** has four depth factor tables. One table lists the factors to use when the depth of the standard lot in the neighborhood is 100 feet and the subject lot varies from this standard depth. A second table contains factors to use when the standard lot has a depth of 120 feet, a third table contains factors to use when the standard lot depth is 132 feet, and the fourth table contains factors to use when the standard lot depth is 150 feet. These tables were designed primarily for use in valuing residential lots and should not be used in neighborhoods or areas where the front foot unit of comparison is not demonstrated in the market. Depth tables for lots of 100 feet and 120 feet of standard depth are located at the end of this unit.

Irregular lot adjustments are also made when the front foot value is the unit of comparison. These adjustments are based on the assumption that the utility of the lot may be affected by its shape. The most common rule for shape adjustment is known as the **“65-35 Rule.”** It is based on the premise that a right-angle triangular shaped lot, with its base on the street, has 65 percent of the value of a rectangular lot of the same frontage and depth. It also assumes that a right-angle triangular shaped lot with its apex, or point, on a street, has 35 percent of the value of a rectangular lot that of the same dimensions.

Other types of irregular shaped lots may have to be measured and valued as though they are separate lots, with each value being combined into a final lot value. The most common methods would incorporate the use of average depths, and the use of rectangles and triangles.

As previously stated, when size is the dominant factor in determining value, the square foot unit of value is used. The value of the lot is found by multiplying the number of square feet by the \$/SF value. For example, a lot is 80' x 100' and the unit value is \$.90/SF. The lot has a value of \$7,200. (80' x 100' = 8,000 SF x \$.90.)

Irregular shaped lots will be valued similarly to the steps above, except depth is not a factor in determining a final value. One must keep in mind that if a triangular shaped lot is being valued, the number of square feet contained in the lot is determined by:

$$\frac{\text{base} \times \text{height}}{2}$$

Exercise 7-1

65/35 Rule for right-angle triangular shaped lots

The “65-35 Rule” is based on the premise that a right-angle triangular shaped lot, with its base on the street, has 65 percent of the value of a rectangular lot of the same frontage and depth. It also assumes that a right-angle triangular shaped lot with its apex, or point, on a street, has 35 percent of the value of a rectangular lot of the same dimensions.

Use the worksheet on Page 7-10 for this exercise.

The lots in Exercise 7-1 have a standard depth of 100 feet. Use the front foot method to value these lots, using the following formula:

Lot value = number of FF X (\$ per FF) X factors (65/35, depth factors)

Compute the value for lot C first because it is a rectangular lot with a depth equal to our standard depth of 100'. Therefore, you will not have a depth factor adjustment. To compute the lot value, multiply the 150' of frontage by the \$100 per front foot value. No depth or shape factors are required.

$$\text{Lot C } 150' \times \$100/\text{FF} = \$15,000$$

Lot A is a right-angle triangular shaped lot with its base on the street, and will carry 65 percent of the value of lot C, a full lot. Again, the depth of lot A is equal to our standard depth. To compute the value of lot A, chain multiply the 150' of frontage by the \$100 per front foot value by the shape adjustment factor of 65% (.65).

$$\text{Lot A } 150' \times \$100/\text{FF} \times 65\% (.65) = \$9,750$$

Lot B is a right-angle triangular shaped lot with its apex, or point on the street, and will carry 35 percent of the value of lot C, a full lot. Again, the depth of lot B is equal to our standard depth. To compute the value of lot B, chain multiply the 150' of frontage by the \$100 per front foot value by the shape adjustment factor of 35% (.35).

$$\text{Lot B } 150' \times \$100/\text{FF} \times 35\% (.35) = \$5,250$$

Check the accuracy of your computations by adding the values for lots A and B. This value should equal the value of a full lot, such as lot C.

Exercise 7-2

4-3-2-1 Theory

The “4-3-2-1 Theory” assumes that the front of a lot is more valuable than the rear portion. This theory states that

- the first 25 percent of depth of a lot represents 40 percent of the total lot value,
- the second 25 percent of depth represents 30 percent of the lot value,
- the third 25 percent of depth represents 20 percent of value, and
- the fourth 25 percent represents the final 10 percent of the lot value.

This exercise is broken down into four separate drawings on the worksheet on Page 7-9. All four lots are a visual representation of the lots depicted for Exercise 7-2. All drawings have 100' of standard depth and 100' of frontage.

Drawing A

This lot has the standard depth of 100' and 100' feet of frontage. To compute the value for this lot, multiply the 100' of frontage by the \$100 per front foot value.

$$100' \times \$100/\text{FF} = \$10,000$$

Drawing B

This lot has a depth of 75', and its value is based on the standard depth of 100'. Using the “4-3-2-1 Theory,” the first 25 percent of the lot will carry 40 percent of the full lot value; the second 25 percent of the lot will carry 30 percent of the full lot value; and the third 25 percent of the lot will carry 20 percent of the full lot value. Therefore, the total percentage of value for this lot would be calculated as shown below.

$$40\% (.40) + 30\% (.30) + 20\% (.20) = 90\% (.90) \text{ of value within this 75' lot}$$

To compute the value for this lot, multiply the 100' of frontage by the \$100 per front foot value, by 90% (.90), the value within this 75' lot.

$$100' \times \$100/\text{FF} \times 90\% (.90) = \$9,000$$

Drawing C

This lot has a depth of 50', and its value is based on the standard depth of 100'.

Using the "4-3-2-1 Theory," the first 25 percent of the lot will carry 40 percent of the full lot value and the second 25 percent of the lot will carry 30 percent of the full lot value. Therefore, the total percentage of value for this lot would be calculated as shown below.

$$40\% (.40) + 30\% (.30) = 70\% (.70) \text{ of value within this 50' lot}$$

To compute the value for this lot, multiply the 100' of frontage by the \$100 per front foot value, by 70% (.70), the value within this 50' lot.

$$100' \times \$100/\text{FF} \times 70\% (.70) = \$7,000$$

Drawing D

This lot has a depth of 25' and its value is based on the standard depth of 100'.

Using the "4-3-2-1 Theory," the first 25 percent of the lot will carry 40 percent of the full lot value.

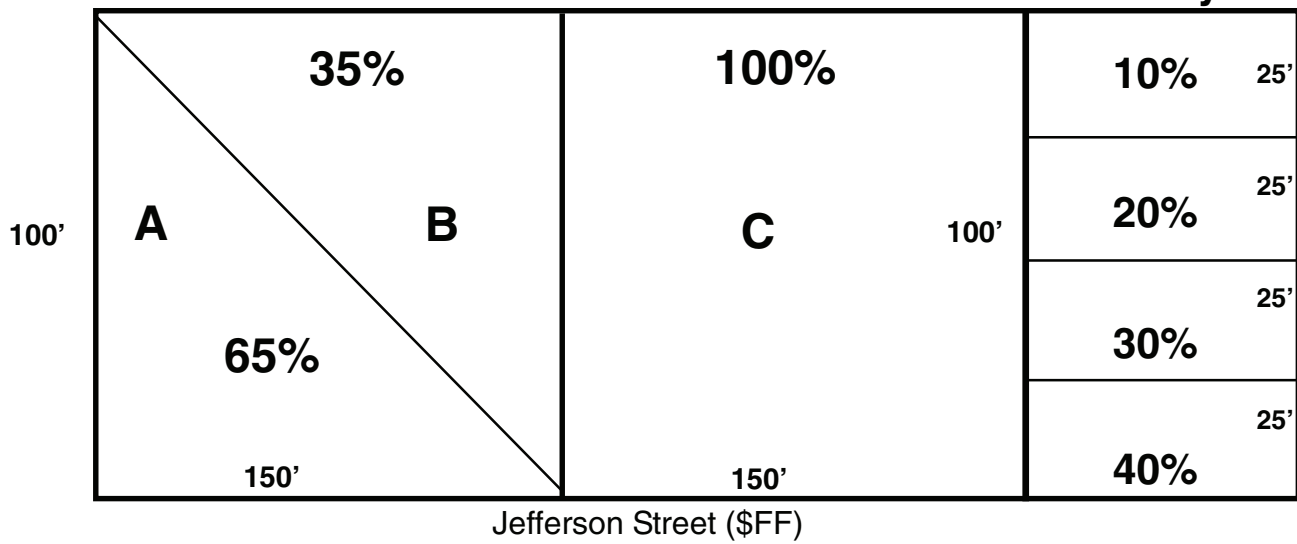
To compute the value for this lot, multiply the 100' of frontage by the \$100 per front foot value, by 40% (.40), the value within this 25' lot.

$$100' \times \$100/\text{FF} \times 40\% (.40) = \$4,000$$

Exercises 7-1 and 7-2 worksheet

65/35 Rule

4-3-2-1 Theory



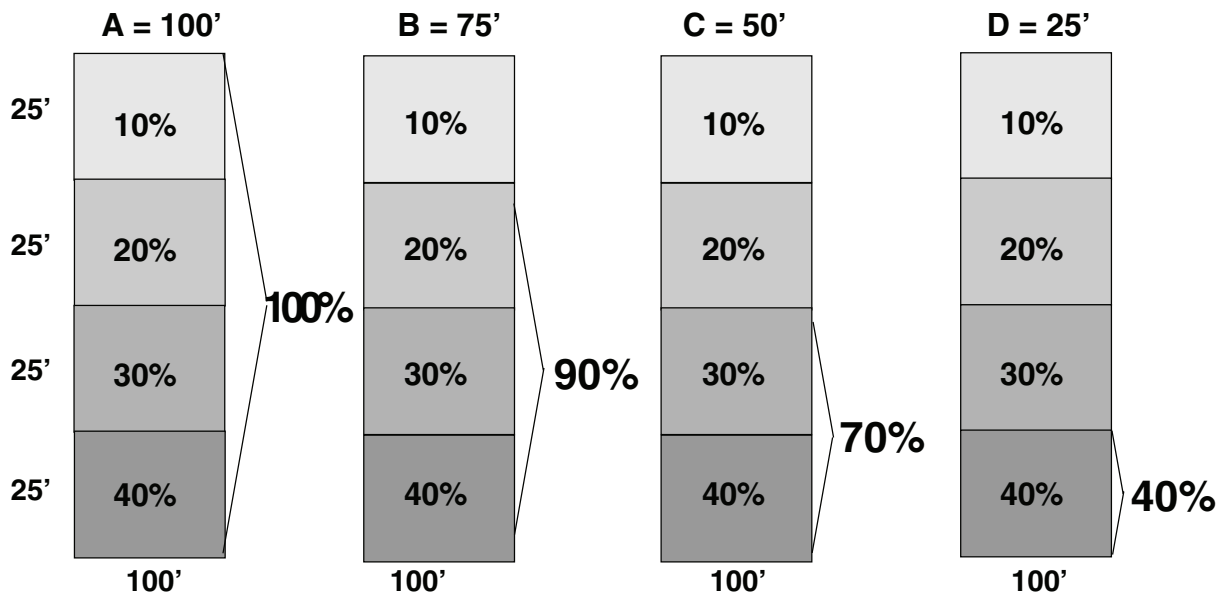
Exercise 7-1

\$100 FF

Compute the values for the three parcels above, with a standard depth of 100', if the front foot value is \$100 FF.

A _____
B _____
C _____

4-3-2-1 Theory



Exercise 7-2

Using the 4-3-2-1 theory, determine the value of the parcel segments.

Depth \$100 FF

Lot A 100' _____
Lot B 75' _____
Lot C 50' _____
Lot D 25' _____

Exercise 7-3

Residential lots

The purpose of this exercise is to familiarize you with the valuation of lots with various depths and shapes. The lot depth table for 100' is located at the end of this chapter. Depth tables should only be used when the front foot unit of comparison exists in the market.

The lots in this exercise are numbered for identification purposes only. For this exercise, the front foot unit of comparison derived from the market is \$100 per front foot. The depth of 100 feet is determined to be the standard depth for this neighborhood. The square foot value derived from the market is \$1/SF.

Value the lots using the formulas below.

Front foot formula

Lot value = number of FF X \$ per FF X factors for shape and depth

Square foot formula

Lot value = number of SF X \$ per SF

Use the worksheet on Page 7-13 as an example to work the similar exercise on Page 7-14.

1 Lot 004

The depth of lot 004 is 100'. This is equal to the standard depth of 100' for this neighborhood, so you will not have a depth factor for this lot. To compute the lot value, multiply the 100' of frontage by the \$100 per front foot value.

Value of lot 004 **100' X \$100/FF = \$10,000**

To compute the lot value using the square foot value as the unit value, multiply the frontage 100' by the depth of 100' by the square foot value (\$1/SF).

100' x 100' x \$1/SF = \$10,000

2 Lot 005

The depth of lot 005 is 70'. Since the standard depth is 100', this lot will require a depth factor adjustment from the lot depth table on Page 7-19. The left column indicates the depths of various lots, and the right column indicates the adjustment as a percent.

Look down this table until you find 70' in the left column. The adjustment column directly to the right indicates a depth factor adjustment of 86 percent. To compute the lot value, chain multiply the 75' of frontage by the \$100 per front foot value, by the depth factor adjustment of 86% (.86).

$$\text{Value of lot 005} \quad 75' \times \$100/\text{FF} \times 86\% (.86) = \$6,450$$

To compute the \$/SF value, simply multiply the frontage of 75' by the depth of 70'. A depth factor is not applied when using \$/SF values.

$$75' \times 70' \times \$1/\text{SF} = \$5,250$$

3 Lot 006

The depth of lot 006 is 100', so no depth factor adjustment is required. The lot is a right-angle triangular shaped lot with its apex, or point, on the street and will carry 35 percent of the value of a rectangular lot having the same dimensions. To compute the lot value, chain multiply the 75' of frontage by the \$100 per front foot value, by the shape adjustment factor of 35% (.35).

$$\text{Value of lot 006} \quad 75' \times \$100/\text{FF} \times 35\% (.35) = \$2625$$

The first step is to determine the square footage of the triangular shaped lot. Multiply the base, or length, by the height and divide by 2. The square footage is then multiplied by the \$/SF value.

$$\frac{75' \times 100'}{2} = 3,750 \text{ SF} \times \$1/\text{SF} = \$3,750$$

4 Lot 007

The depth of lot 007 is 100', so no depth factor adjustment is required. The lot is a right-angle triangular shaped lot with its base on the street, and will carry 65 percent of the value of a rectangular lot having the same frontage and depth. To compute the lot value, chain multiply the 75' of frontage by the \$100 per front foot value, by the shape adjustment factor of 65% (.65).

$$\text{Value of lot 007} \quad 75' \times \$100/\text{FF} \times 65\% (.65) = \$4875$$

Follow the same process for lot 007 as you did for lot 006.

$$\frac{75' \times 100'}{2} = 3,750 \text{ SF} \times \$1/\text{SF} = \$3,750$$

5 Lot 008

The depth of lot 008 is 120'. Since the standard depth is 100', this lot requires a depth factor adjustment. The lot depth table indicates an adjustment factor of 106 percent for 120'. To compute the lot value, chain multiply the 75' of frontage by the \$100 per front foot value, by the depth factor adjustment of 106% (1.06).

$$\text{Value of lot 008} \quad 75' \times \$100/\text{FF} \times 106\% (1.06) = \$7950$$

$$75' \times 120' \times \$1/\text{SF} = \$9,000$$

6 Lot 009

The sides of lot 009 are unequal in length. First you must obtain an average depth for this lot to determine if a depth factor is applicable. The left side has a depth of 120', and the right side has a depth of 80'. Add both sides together to obtain a total of 200' (**left side of 120' + right side of 80' = 200'**). Divide by 2 for an average depth of 100' (**200' ÷ 2 = 100'**). This is your standard depth, so you will not have a depth factor adjustment. To compute the lot value, multiply the 75' of frontage by the \$100 per front foot value.

$$\text{Value of lot 009} \quad 75' \times \$100/\text{FF} = \$7500$$

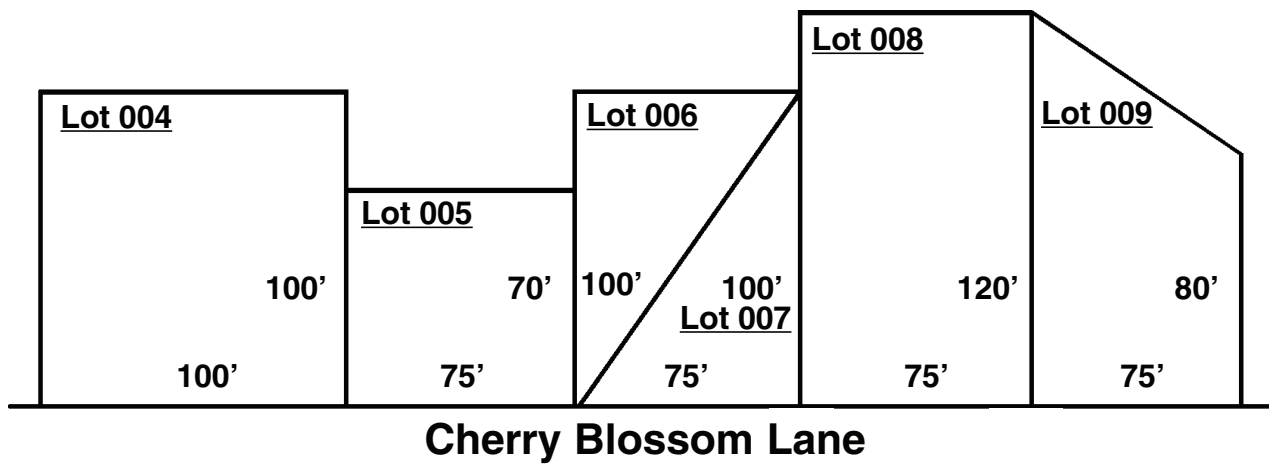
When using \$/SF as the unit value, this lot will be divided into a triangular-shaped portion (40' x 75') containing 1,500 SF, and a rectangular-shaped portion (75' x 80') containing 6,000 SF. Adding the 1,500 SF and the 6,000 SF gives a total of 7,500 SF for the entire lot.

This lot contains 7,500 SF x \$1/SF = \$7,500.

Exercise 7-3 worksheet

Residential lots

\$100 FF \$ 1/SF
100' Depth



Front foot

Lot 004	$100' \times \$100 \text{ FF} = \$10,000$
Lot 005	$75' \times \$100 \text{ FF} \times 86\% (.86) \text{ (depth factor)} = \$6,450$
Lot 006	$75' \times \$100 \text{ FF} \times 35\% (.35) \text{ (shape adjustment factor)} = \$2,625$
Lot 007	$75' \times \$100 \text{ FF} \times 65\% (.65) \text{ (shape adjustment factor)} = \$4,875$
Lot 008	$75' \times \$100 \text{ FF} \times 106\% (1.06) \text{ (depth factor)} = \$7,950$
Lot 009	$75' \times \$100 \text{ FF} = \$7,500 \text{ (average depth is 100')}$

Square foot

Lot 004	$100' \times 100' \times \$1/\text{SF} = \$10,000$
Lot 005	$75' \times 70' \times \$1/\text{SF} = \$5,200$
Lot 006	$75' \times 100' \div 2 = 3,750 \text{ SF} \times \$1/\text{SF} = \$3,750$
Lot 007	$75' \times 100' \div 2 = 3,750 \text{ SF} \times \$1/\text{SF} = \$3,750$
Lot 008	$75' \times 120' \times \$1/\text{SF} = \$9,000$
Lot 009*	$75' \times 80' \times \$1/\text{SF} = \$6,000$
	$40' \times 75' \div 2 = 1,500 \text{ SF} \times \$1/\text{SF} = \$1,500$
	$\$6,000 + \$1,500 = \$7,500$

Exercise 7-4

Calculating FF values and SF values

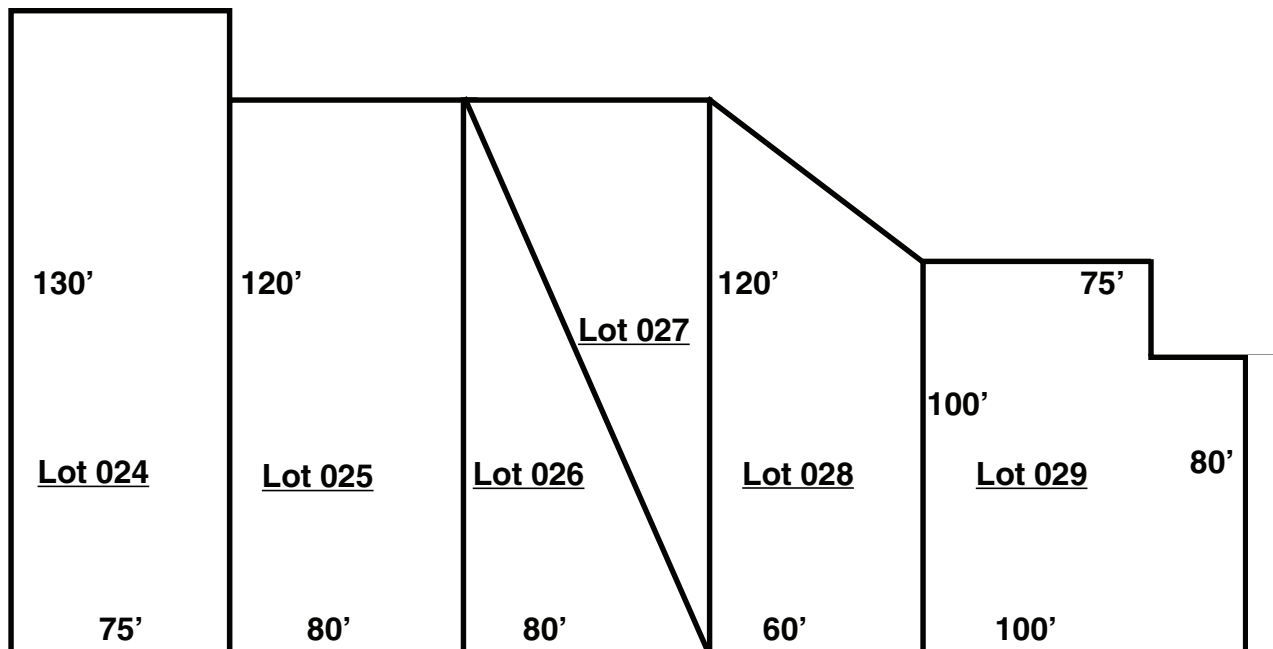
Calculate the FF values and the SF values for lots 024 through 029.

The depth for a standard lot is 120'

The FF value is \$140/FF

The SF value is \$.80/SF

Lot 024	FF value = _____ SF value = _____	Lot 027	FF value = _____ SF value = _____
Lot 025	FF value = _____ SF value = _____	Lot 028	FF value = _____ SF value = _____
Lot 026	FF value = _____ SF value = _____	Lot 029	FF value = _____ SF value = _____



Exercise 7-5

Site unit of value

You are appraising a subdivision that began to be developed 10 years ago. Now it is nearing the end of its development life cycle. Approximately 70 percent of the sites are interior sites, lots with trees, and sites with level terrain. The remaining 30 percent consists of corner sites, sites with no trees, and sites with rolling terrain. It appears that the market responds to differences in location and physical features.

The seven sales below have been verified as arm's length transactions. Using the market data, determine the contributory value for time, location, and physical features.

Site	Sales price	Sale date	Size	Location	Physical features
1	\$ 9,000	Current	75 x 200	Interior	Level - trees
2	\$ 8,500	Current	75 x 200	Corner	Level - trees
3	\$ 10,000	Current	75 x 200	Interior	Rolling - trees
4	\$ 9,000	1 year ago	75 x 200	Interior	Rolling - trees
5	\$ 8,000	Current	75 x 200	Interior	Level - no trees
6	\$ 6,500	1 year ago	75 x 200	Corner	Level - no trees
7	\$ 7,500	Current	75 x 200	Corner	Level - no trees

- 1 Based on the above sales, a site that sold today is worth \$_____ more than a site that sold a year ago.
- 2 A site that is on rolling terrain is worth \$_____ more than a site on level terrain.
- 3 A site that has trees is worth \$_____ more than a site without trees.
- 4 An interior site is worth \$_____ more than a corner site.

Summary

The assessor is responsible for determining the value of both the land and the improvement for all properties located in his or her jurisdiction. **Land** is valued as vacant and at its highest and best use.

Several principles may be used to value land. The three most common units of value are **front foot value; square foot value; and site value.**

A **front foot** is a strip of land 1 foot wide running from the front to the rear of the lot. Adjustments may be necessary when using the front foot (FF) method to value residential property, the adjustments described below may be necessary.

Depth tables are based on the assumption that the front portion of the lot is more valuable, on a unit basis, than the rear portion. The basis used for deriving depth tables is the **"4-3-2-1 Theory."**

An irregular lot adjustment is also made when the front foot value is the unit of comparison. These adjustments are based on the assumption that the utility of the lot may be affected by its shape.

The most common rule for shape adjustment is known as the **"65-35 Rule."** It is based on the premise that a right-angle triangular shaped lot with its base on the street has 65 percent of the value of a rectangular lot having the same frontage and depth. It also assumes that a right-angle triangular shaped lot with its apex, or point on a street has 35 percent of the value of a rectangular lot having the same dimensions.

The area of a triangle is found by multiplying the base by the height and dividing by 2.

Unit 7

Review questions

Match these terms with the correct definition.

- | | |
|---------------------------------|--|
| ___ “65-35 Rule” | A as vacant and at its highest and best use. |
| ___ “4-3-2-1 Theory” | B based on the premise that the value of a right-angle triangular shaped lot is affected by its shape. |
| ___ Front foot | C the first 25 percent of depth of a lot represents 40 percent of the total lot value; the second 25 percent of depth represents 30 percent of the lot value; the third 25 percent of depth represents 20 percent of value; and the fourth 25 percent represents the final 10 percent of the lot value. |
| ___ Depth table | D a strip of land 1 foot wide running from the front to the rear of the lot. |
| ___ How land is valued | E based on the assumption that the front portion of the lot is more valuable on a unit basis than the rear portion. |
| ___ $\frac{b \times h}{2}$ | F unit value |
| ___ $\frac{SP}{\text{\#units}}$ | G area of a triangular-shaped lot. |

Lot Depth Table

100 Feet Standard Depth

Percentages of front foot value for lots 1 to 400 feet deep

1-40		41-80		81-120		121-160		161-400	
Depth	%	Depth	%	Depth	%	Depth	%	Depth	%
1	7	41	66	81	92	121	106	161	116
2	9	42	67	82	92	122	107	162	117
3	11	43	67	83	93	123	107	163	117
4	13	44	68	84	93	124	107	164	117
5	15	45	69	85	94	125	108	165	117
6	17	46	70	86	94	126	108	166	117
7	19	47	71	87	95	127	108	167	117
8	21	48	71	88	95	128	108	168	118
9	23	49	72	89	96	129	109	169	118
10	25	50	73	90	96	130	109	170	118
11	27	51	74	91	96	131	109	175	118
12	29	52	75	92	97	132	110	180	119
13	31	53	75	93	97	133	110	185	120
14	33	54	76	94	98	134	110	190	120
15	35	55	77	95	98	135	110	195	121
16	37	56	78	96	98	136	111	200	121
17	38	57	78	97	99	137	111	205	121
18	40	58	79	98	99	138	111	210	121
19	41	59	79	99	100	139	112	215	121
20	43	60	80	100	100	140	112	220	122
21	44	61	81	101	100	141	112	225	122
22	46	62	81	102	101	142	112	230	122
23	47	63	82	103	101	143	113	235	122
24	49	64	82	104	101	144	113	240	123
25	50	65	83	105	101	145	113	250	123
26	51	66	84	106	102	146	113	260	124
27	52	67	84	107	102	147	114	270	124
28	53	68	85	108	102	148	114	280	125
29	54	69	85	109	103	149	114	290	125
30	55	70	86	110	103	150	114	300	126
31	56	71	87	111	103	151	114	310	126
32	57	72	87	112	103	152	115	320	127
33	58	73	88	113	104	153	115	330	127
34	59	74	88	114	104	154	115	340	128
35	60	75	89	115	104	155	115	350	128
36	61	76	89	116	105	156	115	360	129
37	62	77	90	117	105	157	116	370	129
38	63	78	90	118	105	158	116	380	130
39	64	79	91	119	106	159	116	390	130
40	65	80	91	120	106	160	116	400	131

Lot Depth Table

120 Feet Standard Depth

Percentages of front foot value for lots 1 to 400 feet deep

1-40		41-80		81-120		121-160		161-400	
Depth	%	Depth	%	Depth	%	Depth	%	Depth	%
1	3	41	59	81	82	121	100	161	114
2	5	42	59	82	83	122	101	162	114
3	8	43	60	83	83	123	101	163	115
4	10	44	60	84	84	124	102	164	115
5	13	45	61	85	84	125	102	165	115
6	15	46	62	86	85	126	103	166	115
7	17	47	62	87	85	127	103	167	115
8	19	48	63	88	86	128	103	168	116
9	21	49	63	89	86	129	104	169	116
10	24	50	64	90	87	130	104	170	116
11	26	51	65	91	87	131	105	175	117
12	27	52	65	92	87	132	105	180	118
13	29	53	66	93	88	133	105	185	119
14	31	54	66	94	88	134	106	190	120
15	33	55	67	95	89	135	106	195	121
16	35	56	68	96	89	136	107	200	122
17	36	57	68	97	90	137	107	205	122
18	38	58	69	98	90	138	107	210	123
19	40	59	69	99	91	139	108	215	123
20	41	60	70	100	91	140	108	220	123
21	42	61	71	101	91	141	108	225	123
22	43	62	71	102	92	142	109	230	124
23	44	63	72	103	92	143	109	235	124
24	45	64	73	104	93	144	109	240	124
25	46	65	73	105	93	145	110	250	125
26	47	66	74	106	94	146	110	260	125
27	48	67	75	107	94	147	110	270	125
28	48	68	75	108	95	148	111	280	125
29	49	69	76	109	95	149	111	290	126
30	50	70	76	110	96	150	111	300	126
31	51	71	77	111	96	151	112	310	126
32	52	72	78	112	97	152	112	320	126
33	53	73	78	113	97	153	112	330	127
34	53	74	79	114	97	154	112	340	127
35	54	75	79	115	98	155	113	350	127
36	55	76	80	116	98	156	113	360	127
37	56	77	80	117	99	157	113	370	128
38	57	78	81	118	99	158	113	380	128
39	57	79	81	119	100	159	114	390	128
40	58	80	82	120	100	160	114	400	128

Unit 8

Commercial Square Foot Schedules

This unit explains the use of the commercial square foot and subsidiary cost schedules found in the IRPAM.

The purpose of this unit is to provide a basic understanding of the format, values, and various adjustment factors found in the cost schedules.

Learning objectives

After completing the assigned readings, you should be able to

- locate base costs for the basement, first floor, and upper floors in the commercial schedules,
- locate and apply the wall height, size, shape, weight, and load bearing adjustment factors,
- locate costs for plumbing, air conditioning, and sprinklers in the commercial supplemental cost schedules,
- identify pertinent construction specifications found on the PRC-4,
- determine the REL of a commercial improvement, and
- arrive at a correct estimate of market value using the commercial square foot schedules.



Terms and concepts

Base price adjustment (BPA) factor

Construction specifications

Size factor

Wall height adjustment factor

Shape factor

Base cost

Weight and load bearing adjustment

Frame bay

Remaining economic life (REL)

Commercial schedules

The commercial schedules in the IRPAM are based on construction costs in central Illinois. The values given are also based on construction using average quality materials and workmanship. As discussed earlier, there are various factors that can be applied to adjust the IRPAM to reflect the values in various jurisdictions.

The Commercial Square Foot Schedule has been developed for pricing the typical mercantile building of 1-4 stories. The schedule is also appropriate for free-standing mercantile buildings and pre-engineered steel store and office buildings. For large mercantile installations and high rise office complexes, the component-in-place (CIP) method should be used. This method will not be covered in this class.

It is important to use the appropriate schedule. As with any cost schedule, the assessor must be aware of the items that are included in the base cost. Before using a schedule, read all of the information on the schedules.

The **base cost** is the cost indicated in the schedules representing the cost of construction per square foot of the structure. The base cost schedules include normal amounts for excavation, foundations, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Air conditioning, and sprinklers are included for supermarkets and discounts centers only. Other features should be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarkets, discount, and pre-engineered steel store and office use classes. For all other use classes the base price must be adjusted by factors from the building size and shape adjustment tables. These factors are discussed in detail later in this unit.

The information from the preceding paragraphs is printed at the top of the Commercial Square Foot Schedule, shown below. If you are not sure which items are included in the base price, you should refer to this information on the schedule. If a building has construction features other than those included in the base cost schedules, adjustments to the base cost must be made. Other additions may include such items as plumbing fixtures, air conditioning, and sprinkler systems. The IRPAM includes various supplemental schedules to assist in valuing these variances. These supplemental schedules are discussed in detail later in this unit.

The commercial square foot schedule has been developed for pricing the typical mercantile building of 1 through 4 stories. The schedule is also appropriate for free-standing mercantile buildings and pre-engineered steel store and office buildings. Use the component-in-place (CIP) method for large mercantile installations and high rise office complexes. Price apartment buildings from the apartment schedule. Supermarkets to 32,000 SF, discount centers to 140,000 SF, and pre-engineered steel store and office buildings to 8,000 SF can be priced from these schedules. Buildings used for these purposes that exceed these size limitations should be priced by using the CIP schedules.

Base prices								
The base price includes amounts for excavation, foundation, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Supermarkets and discount centers only include air conditioning and sprinklers. Other features are to be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarket, discount, and pre-engineered steel store and office use classes. For all other use classes, the given price is to be adjusted by a factor from the building shape adjustment table.								
Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/ stone	Block/ steel	Brick/ stone	Block/ steel	Brick/ stone	Block/ steel

The commercial schedules are used in conjunction with the commercial property record cards (PRCs). PRC-4 is used for listing construction specifications, property use, and for computing building values. PRC-3 (on the opposite side of PRC-4) is used for valuing commercial or industrial land.

Property Record — Commercial — Industrial														
Construction Specifications					Use			Data Bank			Description		Computation	
Foundation					Store	Office	Vacant	SF Ground Area			Flr. Price x Ht. Adj.		WH	
Sprd. Ftg.					Apt.	WH	Abandoned	Eff. Perim LF					Bsmt.	
Caisson					Factory			CF of Bldg.					1st Floor	
Wall Framing					No. of Units			SF Wall Area					2nd Floor	
B 1 2 3 A					Avg. Unit Size			Wall Ratio					3rd Floor	
Wood					No. Rooms Per Unit			Sty.			Sched.			
Steel O/FP					Prorated @ _____ % with:									
Reinf. Concrete					<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; right: 0; bottom: 0; left: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>									
Load Bearing														
Frame Bay - Bay Area														
SF														
Floors														
Wood														
Steel O/FP														
Reinf. Concrete														
Frame														
Wood Steel Conc.														
Exterior Walls					<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; right: 0; bottom: 0; left: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>									
Siding														
Masonry Blk./Brk.														
Steel														
Glass														
Finish														
Unfinished														
Finished Open														
Finished Divd.														
Heat														
Cent. Wm. Air					<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; right: 0; bottom: 0; left: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>									
Ht. Wt/Steam														
Unit Heaters														
None														
Air Conditioning														
Central														
Unit														
None														
Roofing														
Composition														
Slate					<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; right: 0; bottom: 0; left: 0; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px);"></div> </div>									
Frame														
Wood Steel Conc.														
Plumbing Type														
1														
3														
2														
4														
Sprinkler														
Listed by:														
Date:										Total full value all buildings				

PRC-4 (R-1/00) (opposite PRC-3)

The PRC-3 shown below is for reference only. Since this class deals with the use of the commercial schedules, you will not be required to complete a PRC-3.

Property Record — Commercial — Industrial																		
Ownership and Mailing Address						Township		Volume		Tax Code	Area	Sect.	Block	Parcel	Unit			
						Property Class		Land Use		Zoning		NH Code		Card No. _____ of _____		Condo. Comm.		
						Record of Ownership						Date		Deed Stamps		Sale Price		
Property Address						Street		Nghbhd.		Utilities		Topo.		Division				
						Private Rd.		Improved		Water		Level						
						Cul-de-sac		Static		Sewer		High						
						Alley		Decline		Gas		Low						
						Traffic Lt.		Blighted		Electric		Rolling						
Memo						Traffic Hvy.				View								
						Building Permit Record												
						Date		Number		Amount		Year Assessed		N/C	P/U Year		Purpose	
						Summary of Assessed Values												
						Land Bldgs. Total		Orig. Asmt.: Year _____				Rev. by: Year _____						
								Full Value		Asmt. Level	Assessed Value		Full Value		Asmt. Level	Assessed Value		
						Land Bldgs. Total		Rev. by: Year _____				Rev. by: Year _____						
								Full Value		Asmt. Level	Assessed Value		Full Value		Asmt. Level	Assessed Value		
						Land Computations						Land Bldgs. Total		Rev. by: Year _____				Rev. by: Year _____
Unit Type	No. Units	Depth	Unit Value	D. Fac.	I. Fac.	Full Value	Full Value		Asmt. Level	Assessed Value				Full Value		Asmt. Level	Assessed Value	
						Land Bldgs. Total		Rev. by: Year _____				Rev. by: Year _____						
								Full Value		Asmt. Level	Assessed Value		Full Value		Asmt. Level	Assessed Value		

IL-492-1549

On the PRC-4, the left portion of the card is used for listing construction specifications and use of the building. Construction specifications include foundation, framing, floors, exterior wall construction, interior finish, heat, air conditioning, roofing, and plumbing.

Property Record — Commercial -											
Construction Specifications						Use				Data Bar	
Foundation						Store		Office		Vacant	
Sprd. Ftg. <input type="checkbox"/> Pile <input type="checkbox"/>						Apt.		WH		Abandoned	
Caisson <input type="checkbox"/> Other <input type="checkbox"/>						Factory					
Wall Framing						No. of Units					
						Avg. Unit Size					
						No. Rooms Per Unit					
Wood <input type="checkbox"/>						Sty. <input type="checkbox"/> Sche <input type="checkbox"/>					
Steel O/FP <input type="checkbox"/>						Prorated @ ____ % with:					
Reinf. Concrete <input type="checkbox"/>						<div style="border: 1px solid black; width: 100%; height: 100%; background-color: #f0f0f0;"> <!-- Grid content would go here --> </div>					
Load Bearing <input type="checkbox"/>											
Frame Bay - Bay Area <input type="checkbox"/> SF <input type="checkbox"/>											
Floors											
Wood <input type="checkbox"/>											
Steel O/FP <input type="checkbox"/>											
Reinf. Concrete <input type="checkbox"/>											
Frame <input type="checkbox"/> Wood <input type="checkbox"/> Steel <input type="checkbox"/> Conc. <input type="checkbox"/>											
Exterior Walls											
Siding <input type="checkbox"/>											
Masonry Blk./Brk. <input type="checkbox"/>											
Steel <input type="checkbox"/>											
Glass <input type="checkbox"/>											
Finish											
Unfinished <input type="checkbox"/>											
Finished Open <input type="checkbox"/>											
Finished Divd. <input type="checkbox"/>											
Heat											
Cent. Wm. Air <input type="checkbox"/>											
Ht. Wt/Steam <input type="checkbox"/>											
Unit Heaters <input type="checkbox"/>											
None <input type="checkbox"/>											
Air Conditioning											
Central <input type="checkbox"/>											
Unit <input type="checkbox"/>											
None <input type="checkbox"/>											
Roofing						Summa					
Composition <input type="checkbox"/> Shingle <input type="checkbox"/>						Type		No.		Construction	
Slate <input type="checkbox"/> Metal <input type="checkbox"/>										Size	
Frame <input type="checkbox"/> Wood <input type="checkbox"/> Steel <input type="checkbox"/> Conc. <input type="checkbox"/>										Rate	
Plumbing Type										Grade	
1 <input type="checkbox"/> 2 <input type="checkbox"/>											
3 <input type="checkbox"/> 4 <input type="checkbox"/>											
Sprinkler <input type="checkbox"/>						Listed by:					
						Date:					

PRC-4 (R-1/00) (opposite PRC-3)

After completing the construction specification and use portion of the PRC-4, the next step in determining a RCN for the structure is to complete the information found in the data bank. The formulas for these calculations were covered in the Math for Assessors section at the beginning of this workbook.

Data Bank	
S/F Ground Area	
Eff. Perim L/F	
C/F of Bldg.	
S/F Wall Area	
Wall Ratio	
Sty.	Schl.

The right column on the PRC-4 is used for computing the full value of the structure. This column is called the computation ladder.

— Industrial									
Block	Description						Computation		
	Flr. Price x Ht. Adj.						WH		
							Bsmt.		
							1st Floor		
							2nd Floor		
							3rd Floor		
							Base Price		
	Size		x Shape		x Weight		BPA		
							Adj. Base Price		
							Heat		
							A/C		
							Electrical Light		
							Sprinkler		
							SF Price		
							SF		
							Subtotal		
							Plumbing		
							Partitions		
							Front		
							Canopy		
							Dock		
	S	C	M	I	Grade		Total		
	C&D	G		NH		A		= FAC	
	Eff. Age		Eff. Age	CDU		Age	Replacement Cost New		
	Depreciation =						REL		
							Full Value		
Value of Other Buildings									
	Age		CDU		Factor		Repl. Cost New	REL	Full Value
	Total full value other buildings								
	Total full value all buildings								

Base prices

After calculating the components of the data bank, the next step is to determine the base cost of the structure. The base cost schedule is used to determine this base cost. The base cost of the structure is based on each floor's use in the structure, as well as the framing and exterior finish of the structure.

The schedule includes values for the basement, first floor, and upper floors. Uses are listed as unfinished, finished open, finished store, finished office, finished apartments, discount center, and supermarket. The framing includes "wood joist," "steel frame," and "concrete frame," with exterior finishes of brick/stone or block/steel.

Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/stone	Block/steel	Brick/stone	Block/steel	Brick/stone	Block/steel
Basement	9'	Unfinished	30.90	30.90	44.15	44.15	43.35	43.35
		Fin. store	39.90	39.90	53.15	53.15	52.35	52.35
		Fin. office	56.45	56.45	69.95	69.95	69.15	69.15
		Fin. apartmnts.	50.20	50.20	63.45	63.45	62.65	62.65
First floor	14'	Store	57.95	55.60	69.60	66.10	72.10	68.60
		Office	71.80	69.45	83.75	80.25	86.25	82.75
		Discount center	—	—	53.55	53.35	—	—
		Supermarket	—	—	62.75	61.05	—	—
Upper floors	12'	Finished open	43.90	41.85	59.60	56.60	58.40	55.40
		Store	44.70	42.70	60.40	57.45	59.25	56.25
		Office	57.75	55.75	73.80	70.80	72.70	69.70
		Apartments	62.40	60.40	78.85	75.85	77.65	74.65
L/B construction adjustment			1.00		0.82		0.84	

This schedule is designed as a guide for computing the replacement cost of a wide variety of typical commercial buildings. Base square foot prices have been developed for various models of particular specifications. Application of the schedule involves the selection of the appropriate base price and adjusting the price to account for any variations between the subject building and the model buildings on which the schedule is based. To use the schedule effectively, a thorough understanding of its composition is essential.

A single square foot price for each story of the subject building is extracted from the schedule by correlating the story level and building use with the frame type and the exterior wall treatment. Frame type and exterior wall type are found on the PRC-4, under **Constr. Specifications**, building use is found under **Use**, and the story level is found under **Description**.

For example, assume the subject improvement is a 2-story commercial building and a brick exterior with wood joists. The basement (9' wall height) is unfinished; the first floor (12' wall height) is finished open and used as a store; the second story (13' wall height) is used as offices. Finished open refers to an open area that has finished floors, walls, and ceilings and has no partition walls.

Referencing the commercial schedule on the previous page, select the values from the **“wood joists,” brick/stone** column.

An unfinished basement has a base price of \$30.90.

The first floor finished open store has a base price of \$57.95.

The upper floor finished into divided offices has a base price of \$57.75.

These values are listed on the computation ladder and the individual values are subject to an adjustment for height variance, if necessary.

Description			Computation
	WH		
30.90	9	Bsmt	
57.95	12	1st Floor	
57.75	13	2nd Floor	
		3rd Floor	

Wall height variation

A wall height adjustment may be necessary when costing out an individual floor. The schedule includes a standard wall height of 14' for the 1st story, 12' for upper stories, and 9' for basements. If a subject building's wall height varies from these dimensions, an adjustment to the base cost is necessary before writing in the computation ladder of the PRC-4. The amount of this adjustment is 1 percent per foot of wall height variation. The standard "wall height" information column is located next to the "story" column on the commercial schedule.

If the wall height of the floor is greater than the wall height indicated on the schedules, you must make a plus adjustment and raise the values because additional construction materials are used. If the wall height of the floor is less than the wall height indicated on the schedules, you must make a minus adjustment and lower the values to account for the decrease in price for materials not needed.

This information is located about two-thirds of the way down on the first page of the commercial square foot schedules.

Wall height adjustment	Add or deduct for each foot of wall height variation.....1%
------------------------	---

The base costs listed in the schedule are based on a basement with a height of 9'. Since the subject property has a basement height of 9', no adjustment is necessary. Therefore, the base price would be factored at 100 percent of the base price noted in the schedule.

$$\$30.90 \times 100\% (1.00) = \$30.90$$

The base costs listed in the schedule are based on a 1st story wall height of 14'. Since the subject property has a wall height of 12', a minus adjustment of 2 percent is necessary. Therefore, the base price would be adjusted by 98 percent.

$$\$57.95 \times 98\% (.98) = \$56.79$$

The base costs listed in the schedule are based on a upper story wall height of 12'. Since the subject property has a wall height of 13', a plus adjustment of 1 percent is necessary. Therefore, the base price would be adjusted by 101 percent.

$$\$57.75 \times 101\% (1.01) = \$58.33$$

The above base costs are entered in the computation column of the PRC-4 and the individual costs per square foot for each floor are added to provide a base price per square foot of ground area for the improvement.

Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/stone	Block/steel	Brick/stone	Block/steel	Brick/stone	Block/steel
Basement	9'	Unfinished	30.90	30.90	44.15	44.15	43.35	43.35
		Fin. store	39.90	39.90	53.15	53.15	52.35	52.35
		Fin. office	56.45	56.45	69.95	69.95	69.15	69.15
		Fin. apartmnts.	50.20	50.20	63.45	63.45	62.65	62.65
First floor	14'	Store	57.95	55.60	69.60	66.10	72.10	68.60
		Office	71.80	69.45	83.75	80.25	86.25	82.75
		Discount center	—	—	53.55	53.35	—	—
		Supermarket	—	—	62.75	61.05	—	—
Upper floors	12'	Finished open	43.90	41.85	59.60	56.60	58.40	55.40
		Store	44.70	42.70	60.40	57.45	59.25	56.25
		Office	57.75	55.75	73.80	70.80	72.70	69.70
		Apartments	62.40	60.40	78.85	75.85	77.65	74.65
L/B construction adjustment			1.00		0.82		0.84	

Reference the appropriate story and wall height schedule from the schedule above. Apply the appropriate adjustment factors to determine the correct adjusted floor prices for the following items.

Base price of floor x factor = adjusted floor price

Basement is 10' high \$30.90 x _____ = \$ _____

First floor is 12' high \$57.95 x _____ = \$ _____

Second floor is 16' high \$43.90 x _____ = \$ _____

Third floor is 8' high \$43.90 x _____ = \$ _____

Base price adjustments

Adjustments to the base price may be necessary for building size, shape, load bearing or construction weight.

Size factor

It usually costs less per unit to build a larger area than a smaller one. The base price schedule was developed from a model building of 7,500 square feet. It is sometimes necessary to adjust the base cost to account for much larger or smaller buildings. The appropriate factor is found in the schedule. Always use a factor, even if the factor is 1.00. You calculated the square foot of ground area when you completed the data bank. The square foot of ground area is computed by multiplying the length of the structure by the width of the structure. For purposes of arriving at a size adjustment factor, you are only concerned with the square footage of the ground floor.

The size adjustment factor table is located about three-fourths of the way down on the first page of the commercial square foot schedules.

Size adjustment factors	For buildings of less than 3,001 SF, multiply by	1.05
	For buildings 3,001 to 10,500 SF, multiply by	1.00
	For buildings 10,501 to 13,300 SF, multiply by	0.95
	For buildings 13,301 to 21,000 SF, multiply by	0.90
	For buildings over 21,000 SF, estimate building costs from CIP schedules.	

For example, based on the SFGA of 3,300 SF, the adjustment factor would be 1.00. A SFGA of 12,500 SF would require a factor of .95.

Refer to the schedule above and apply the appropriate size factor for the following structures.

17,850 SFGA _____ factor

13,500 SFGA _____ factor

10,500 SFGA _____ factor

2,775 SFGA _____ factor

Shape factor

An adjustment for shape is necessary to account for area/perimeter ratio variations. It costs less to build a square box than a rectangular box of the same area and volume because the rectangular box has a greater wall area. The building shape table is provided to adjust the base price for these variations in floor to wall area ratio. The shape adjustment factor is based on the wall ratio that you calculated in the data bank. To compute the wall ratio, divide the cubic feet of the structure by the square feet of wall area.

The table for the shape adjustment factor is located at the bottom of the first page of the commercial square foot schedules.

Commercial building shape adjustment table Wall ratio = cubic feet ÷ sq. ft. wall area										
Wall ratio	7	7.5	8	8.5	9	9.5	10	10.5	11	12
Adjustment factor	1.54	1.48	1.43	1.39	1.35	1.32	1.29	1.26	1.24	1.20
Wall ratio	13	14	15	16	17	18	19	20	22	24
Adjustment factor	1.16	1.13	1.10	1.08	1.05	1.04	1.02	1.00	0.98	0.96
Wall ratio	26	28	30	32	34	36	38	40		
Adjustment factor	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86		

For example, if you had a wall ratio of 12.38, the factor would be 1.20. If you had a wall ratio of 19.75, the factor would be 1.00. (If the specific wall ratio is not shown, use the factor for the wall ratio that is closest).

Referring to the shape adjustment table, indicate the appropriate shape adjustment factor for the following wall ratios.

8	_____	22	_____
10.5	_____	20.75	_____
35.80	_____	14.6	_____

Weight adjustment factors

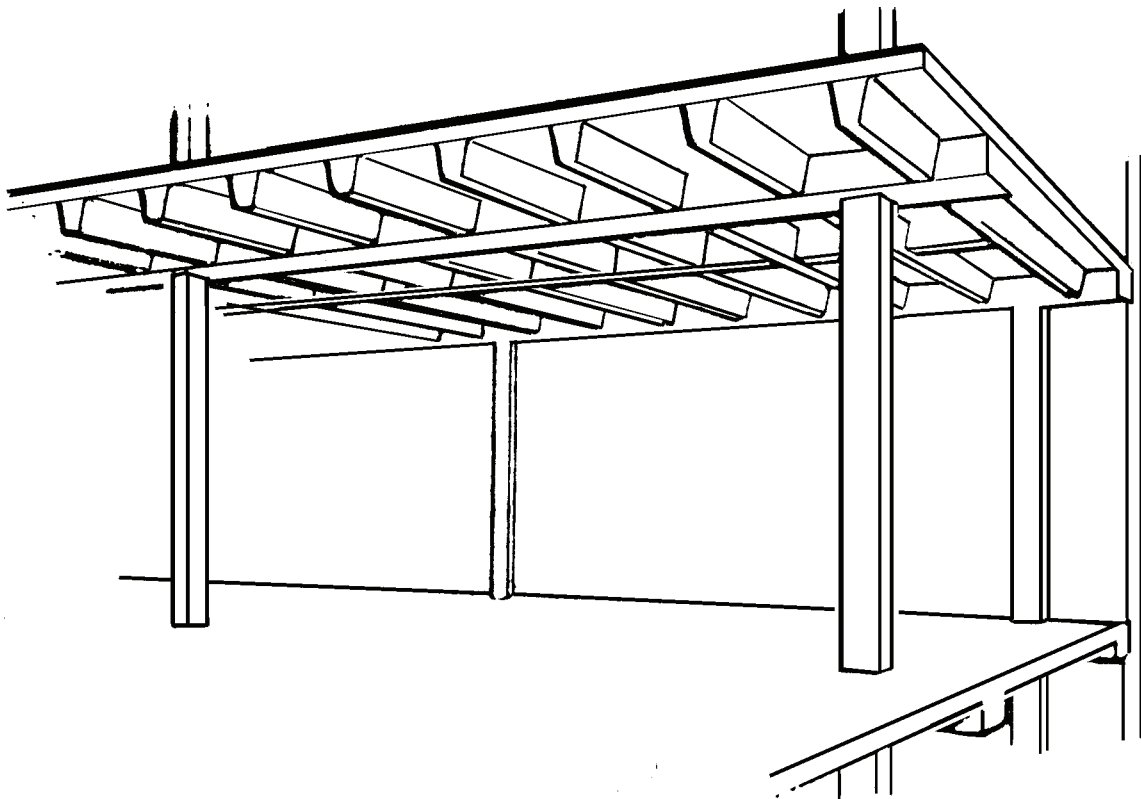
The weight of a structure will be supported either by load bearing walls or frame bays.

In frame buildings, rectangular or square frame bays are formed by support columns. The larger the frame bay area, the heavier the construction, which results in greater expense. The weight adjustment factor is based on the area of the typical bay in conjunction with the appropriate framework.

Probably the most common place that you would see a frame bay is in a multi-story parking structure.

A typical frame bay size is determined by measuring the area from support pole to support pole and then multiplying the length by the width of the bay area.

Frame bay



The table for the frame bay construction structural weight adjustment factor is located about halfway down on the first page of the commercial square foot schedule. In addition to the frame bay size, the type of construction framing is also taken into account. The framing is indicated in the upper portion of the schedule where the base prices were obtained.

Base prices								
The base price includes amounts for excavation, foundation, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Supermarkets and discount centers also include air conditioning and sprinklers. Pre-engineered stores and offices include sprinklers, as well. Other features are to be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarket, discount, and pre-engineered steel store and office use classes. For all other use classes, the given price is to be adjusted by a factor from the building shape adjustment table.								
Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/ stone	Block/ steel	Brick/ stone	Block/ steel	Brick/ stone	Block/ steel
Basement	9'	Unfinished	\$30.90	\$30.90	\$44.15	\$44.15	\$43.35	\$43.35
		Fin. store	39.90	39.90	53.15	53.15	52.35	52.35
		Fin. office	56.45	56.45	69.95	69.95	69.15	69.15
		Fin. apartments	50.20	50.20	63.45	63.45	62.65	62.65
First floor	14'	Store	57.95	55.60	69.60	66.10	72.10	68.60
		Office	71.80	69.45	83.75	80.25	86.25	82.75
		Discount center	---	---	53.55	53.35	---	---
		Supermarket	---	---	62.75	61.05	---	---
Upper floors	12'	Finished open	43.90	41.85	59.60	56.60	58.40	55.40
		Store	44.70	42.70	60.40	57.45	59.25	56.25
		Office	57.75	55.75	73.80	70.80	72.70	69.70
		Apartments	62.40	60.40	78.85	75.85	77.65	74.65
L/B construction adjustment			1.00		0.82		0.84	
Structural construction weight adjustment factors			Frame Bay					
			Size	Adj.	Size	Adj.	Size	Adj.
			under 401	0.95	under 401	0.91	under 401	0.91
			401-1,200	1.00	401-1,200	1.00	401-1,200	1.00
			1,201-2,000	1.11	1,201-2,000	1.09	1,201-2,000	1.09
			over 2,000	1.21	over 2,000	1.18	over 2,000	1.18
Wall height adjustment			Add or deduct for each foot of wall height variation..... 1%					
Size adjustment factors			For buildings of less than 3,001 SF, multiply by..... 1.05					
			For buildings 3,001 to 10,500 SF, multiply by..... 1.00					
			For buildings 10,501 to 13,300 SF, multiply by..... 0.95					
			For buildings 13,301 to 21,000 SF, multiply by..... 0.90					
			For buildings over 21,000 SF, estimate building costs from CIP schedules.					
One story on slab	14'	Pre-engineered store.....	\$46.65	The framing includes features specified in the Pre-engineered Building Schedule.				
		Pre-engineered office.....	56.40					

For example, if you have a typical frame bay size of 1,550 square feet with steel frame construction, the adjustment factor would be 1.09. If a frame bay of 1,550 square feet had wood framing, the factor would be 1.11.

Referring to the schedule, indicate the appropriate factor for these frame bay sizes.

10' X 40' = _____ square feet _____ factor
(wood joist frame)

15' X 35' = _____ square feet _____ factor
(steel frame)

60' X 60' = _____ square feet _____ factor
(concrete frame)

Load bearing (L/B) adjustments

If a structure does not have frame bay construction, it will have load bearing walls, with perhaps some interior support. A load bearing construction adjustment is also based on the type of frame construction. The schedule for load bearing construction is located immediately under the base cost schedules and is shown on the previous page.

If you had a load bearing structure with wood joists the factor would be 1.00, since the schedule indicates that no adjustment is necessary. If you had steel frame construction the factor would be .82.

Referring to the schedule on the preceding page, indicate the appropriate factor for the following load bearing construction.

wood joists _____ factor

steel frame _____ factor

concrete frame _____ factor

Base price adjustment (BPA) factor

Once you have determined the individual adjustment factors for size, shape, and weight, chain multiply these factors to arrive at one **base price adjustment (BPA)** factor. The BPA is a single factor applied to the base price, which results in the adjusted base price. It is important to remember that when computing a BPA, the individual factors are chain multiplied, not added.

For example, if you had factors of 1.00, 1.20, and 1.00, you would multiply $1.00 \times 1.20 \times 1.00$ to arrive at a factor of 1.20. If you were to add the factors you would arrive at a total of 3.20, which would be incorrect.

Once the BPA factor has been determined, it is applied to the base price (which has already been factored for height variances) to arrive at an adjusted base price. It is recommended that you now draw a line through the unadjusted base price to prevent including this amount in further calculations.

For example, if the base price, after factoring in height variance, was \$102.10, you would multiple this by the BPA of 1.32 to arrive at an adjusted base price of \$134.77.

Size adjustment x shape adjustment x construction weight adjustment = BPA

Complete the following chain multiplication exercise.

- 1 Find the size adjustment factor for a building of 2,000 square feet.

$$\underline{\hspace{2cm}} \times 0.94 \times 1.18 = \underline{\hspace{2cm}} \text{ BPA}$$

- 2 Find the weight adjustment factor for a steel frame building with brick exterior walls that has a frame bay size of 10' x 36'.

$$0.90 \times 0.86 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ BPA}$$

- 3 Find the weight adjustment factor for a wood joist frame building with stone exterior walls that has a frame bay size of 10' x 40'.

$$0.95 \quad \times \quad 0.91 \quad \times \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{BPA}$$

- 4 Find the load bearing adjustment for a concrete frame building with load bearing construction.

$$1.05 \quad \times \quad 0.89 \quad \times \quad \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{BPA}$$

- 5 Find the shape adjustment factor for a building with a wall ratio of 34.95.

$$.90 \quad \times \quad \underline{\hspace{1cm}} \quad \times \quad 1.18 \quad = \underline{\hspace{1cm}} \text{BPA}$$

Commercial subsidiary schedules

Other additions to the base price, now the adjusted base price, may be necessary if the building has features that are not included in the base cost. Many of these items are found in the subsidiary schedules. If an item is not found there, the assessor has to refer to a CIP schedule to obtain a cost value. These values are then entered in the appropriate area on the computation ladder and added to the adjusted base cost.

Some features are priced based on the square feet of the floor area, such as sprinklers and air conditioning. The values are entered on the computation ladder, above the **S/F price** line, and represent a cost per square foot of ground area. The cost of each of these features added to the adjusted base prices provide a total square foot price for the building. The square foot price is then multiplied by the square foot of ground area (SFGA). This value is entered on the subtotal line of the computation ladder. Subsidiary items, not priced based on the building's SFFA or SFGA, such as plumbing and loading docks, are entered on the computation ladder below the subtotal line.

The following subsidiary schedules are included in the commercial square foot schedules.

Plumbing — Plumbing costs are based on the number of existing fixture and the type of fixtures. These costs include the piping, installation, *etc.* Plumbing is not included in the base cost, so each fixture must be valued. There are two types of fixtures listed in the schedule, “residential type 1” and “commercial type 2.” Commercial fixtures are of better construction than residential fixtures.

Additions	
Item	Cost
Plumbing (per ea. existing fixture)	
residential (type 1)	\$1,465.00
commercial (type 2)	3,590.00
special (refer to CIP Schedule)	

If the subject property had 12 “type 2” fixtures, you would calculate the value by multiplying 12 by \$3,590 for a total plumbing value of \$43,080. This amount is entered on the computation ladder under **Plumbing**.

Air conditioning (per SFSA)	
*apartments	5.60
store	5.45
office	6.35
*For buildings and heating systems that do not require ducts, add 40%.	

Air conditioning — Air conditioning is priced based on the use of the floor. First obtain a price for each floor that is air conditioned based on its use. Then, add the values for each floor to get a total cost. This amount is entered on the computation ladder under **A/C**.

Subject property

First floor used as a store = \$5.45
Second floor used as an office = \$6.35
Computation ladder = \$11.80

Sprinkler system — The sprinkler cost is based on the total square feet of the serviced area. The first step is to determine the total square feet of serviced area (SFSA).

Sprinkler system (per SFSA)	
through 1,000 SF	5.00
1,001 - 2,000	5.55
2,001 - 5,000	3.45
5,001 - 10,000	3.20
over 10,000	3.10

Subject property

First and second floor sprinkled

First floor has 3,300 SF 3,300 SF;
Second floor has 3,300 SF 3,300 SF;
Total serviced area = 6,600 SF 6,600 SF.

Once this determination has been made, refer to the sprinkler schedule to determine a square foot cost that must be applied to each floor sprinkled.

The 6,600 SF falls within the range of (5,001 SFSA - 10,000 SFSA) and indicates a square foot cost of \$3.20 per SFSA.

The cost of \$3.20 per SFSA is applied to each floor sprinkled to arrive at a sprinkler cost per square foot of \$6.40.

Subject property	First floor	= \$3.20
	Second floor	= <u>\$3.20</u>
		\$6.40

\$6.40 is entered on the **Sprinkler** line of the computation ladder.

Mezzanines (cost per SFFA)		
Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable, typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish components.		
Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	\$17.75	\$23.15
Store, display (fin. open)	29.55	41.70
Storage	17.55	23.15
Office (fin. divided)	39.60	56.60
For wood framed mezzanines, use 65% of the steel cost.		

Mezzanines — Since many commercial structures contain mezzanines, a cost schedule per square foot of floor area is included in the subsidiary schedules for your convenience. The type of framing, as well as the use of the area, are factors to be considered when selecting a value. The cost for the mezzanine is entered on a blank line below the **Subtotal** line on the computation ladder.

Paving — Paving is based on the type of paving. The price is per square foot.

Subject property

Asphalt parking lot, 6000 SF at \$2.25/SF = \$13,500. This value is entered under **the Other buildings** section of the PRC-4.

Yard paving	Per SFSA
asphalt	\$ 2.25
concrete parking	3.25
concrete truck drive	4.45
crushed stone	1.30

Quality					
AA	+50	338%	C	_____	100%
	+25	281%		-5	95%
	+10	248%		±10	90%
	_____	225%	D	+5	86%
	+40	210%		_____	82%
A	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
	_____	150%	E	_____	50%
B	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
B	_____	122%		-40	30%
	-5	116%		-50	25%

Quality grade — As discussed in Unit 6, the quality grade of the material and workmanship has an impact on its RCN. Depending on the grade assigned, a factor is applied to adjust the prices in the schedules.

Commercial structures are often constructed with glass store fronts. Glass store fronts are not included in the base costs, so a separate schedule is provided in the subsidiary schedules to assist in valuing this feature.

Store Fronts	
Type	Per SF display area*
Wood framed glass & trim with	
wood siding	\$11.45
brick	13.20
ceramic	13.65
marble or granite	20.80
Steel framed glass & aluminum trim with	
brick	18.45
ceramic	18.90
marble or granite	26.05
Steel framed glass & stainless steel or bronze trim with	
brick	27.35
ceramic	27.85
marble or granite	35.00
*In calculating the total display area include surface area of all glass, sign, and bulkhead areas, including entrance way, islands, etc.	
Additions to basic store fronts	
Display platforms (per SF)	\$6.40
Display ceiling (per SF)	3.90
Display back (per SF)	6.80
Entrance doors	
Revolving door, each	\$32,850
Hinged aluminum & glass, each	1,300
Hinged bronze or stainless, each	2,700
Sliding panel, aluminum & glass (per SF)	25.95
Add for bronze or stainless steel	25%
Add for automatic door opener (per door)	4,800
Security gates	
Scissor type folding gate painted steel, each	\$800
14 roll-up grille, alum. manual, each	
4' high x 4' long	1,905
4' high x 6' long	1,965
4' high x 8' long	2,295
4' high x 12' long	2,600
4' high x 16' long	3,375
6' high x 4' long	1,995
6' high x 6' long	2,085
6' high x 8' long	2,385
6' high x 12' long	2,980
6' high x 16' long	3,850
Marquees (per SF)	
Plain, steel framed	\$27.95
Ornamental, steel framed	35.90
Plain, wood framed	25.95
Wood or stucco, wood framed	22.80
Illuminated plastic, single face	83.20

Note: The CIP schedules should be consulted for all other items not included in the commercial square foot schedules.

Commercial REL Depreciation Tables

As discussed earlier, the condition, desirability, and utility of the property are factored in by using various CDU ratings. Structures can be rated excellent, good, average, poor, or unsound (undesirable). Unlike the Residential REL Depreciation Table, the age column of the Commercial REL Depreciation Table represents the assigned age given by the assessor to the subject improvement, based on its physical condition in comparison to the physical condition of like commercial buildings having the same chronological age as the subject property. The age based on the condition (C), the desirability (D), and the utility (U) rating produces the effective age of a property. The effective age of the property determines the REL factor, which is applied to the RCN of a structure to adjust for depreciation.

$$\text{REL} + \text{Depreciation} = 100\% \text{ of the value}$$

The Commercial REL Depreciation Table is used to determine the REL factor. After the age has been assigned, an effective age is determined based upon the desirability and utility of the subject property in comparison to other buildings within the neighborhood. This effective age is then used in Schedule B to determine the REL factor to be used on the PRC-4.

Looking at Schedule A, the left column reflects the age of the structure based on condition. Once you have located the age, move to the appropriate column to the right and find the effective age based on the desirability and utility, (DU) rating assigned to the property. Once you have determined the effective age, move over to Schedule B. The left column of Schedule B lists the effective age and the number next to it is the REL factor that will be used to adjust the value in the computation ladder.

Commercial REL Table

Schedule A						Schedule B	
Age* considering physical condition	Effective age considering desirability and utility					REL	
	E	G	A	P	U	Eff. age	REL
1	1	1	1	6	11	1	98
2	1	1	2	7	12	2	96
3	1	1	3	8	13	3	94
4	1	1	4	9	14	4	92
5	1	1	5	10	15	5	90
6	1	1	6	11	16	6	88
7	1	2	7	12	17	7	86
8	1	3	8	13	18	8	84
9	1	4	9	14	19	9	82
10	1	5	10	15	20	10	80
11	1	6	11	16	21	11	78
12	2	7	12	17	22	12	76
13	3	8	13	18	23	13	74
14	4	9	14	19	24	14	72
15	5	10	15	20	25	15	70
16	6	11	16	21	26	16	68
17	7	12	17	22	27	17	66
18	8	13	18	23	28	18	64
19	9	14	19	24	29	19	62
20	10	15	20	25	30	20	60
21	11	16	21	26	31	21	58
22	12	17	22	27	32	22	56
23	13	18	23	28	33	23	54
24	14	19	24	29	34	24	52
25	15	20	25	30	35	25	50
26	16	21	26	31	36	26	48
27	17	22	27	32	37	27	46
28	18	23	28	33	38	28	44
29	19	24	29	34	39	29	42
30	20	25	30	35	40	30	40
31	21	26	31	36	41	31	38
32	22	27	32	37	42	32	36
33	23	28	33	38	43	33	34
34	24	29	34	39	44	34	32
35	25	30	35	40	45	35	30
36	26	31	36	41	—	36	28
37	27	32	37	42	—	37	26
38	28	33	38	43	—	38	24
39	29	34	39	44	—	39	22
40	30	35	40	45	—	40	20
41	31	36	41	—	—	41	18
42	32	37	42	—	—	42	16
43	33	38	43	—	—	43	14
44	34	39	44	—	—	44	12
45	35	40	45	—	—	45	10
46	36	41	—	—	—	over 45	10
47	37	42	—	—	—	*Actual age and effective age are the same when physical condition of improvement is average.	
48	38	43	—	—	—		
49	39	44	—	—	—		
50	40	45	—	—	—		

Property Record — Commercial — Industrial

Construction Specifications										Use		Data Bank		Description		Computation	
Foundation				Office		2		Vacant		B		SF Ground Area		3,420		WH	
Sprd. Fig.				Pile		WH		Abandoned				Eff. Perim LF		220		9 Bsmt.	
Caisson				Other								CF of Bldg.		116,280		15 1st Floor	
Wall Framing				B		1		2		3		SF Wall Area		7,480		10 2nd Floor	
Wood				B		1		2		3		Wall Ratio		15.55		3rd Floor	
Steel O/F/P				B		1		2		3		No. Rooms Per Unit		Comm			
Reinf. Concrete				B		1		2		3		Avg. Unit Size		15.55			
Load Bearing				B		1		2		3		No. Rooms Per Unit		Comm			
Frame Bay - Bay Area				B		1		2		3		Prorated @ _____ % with:					
SF				B		1		2		3							
Floors				Wood		✓		✓		✓		Size x shape x weight		146.03			
Steel O/F/P				Wood		✓		✓		✓		Size 1.00 x Shape 1.08 x Weight 1.00		1.08			
Reinf. Concrete				Reinf. Concrete		✓		✓		✓		1st 5.45 + 2nd 6.35		11.80			
Frame				Frame		✓		✓		✓		1st 3,420		6.40			
Exterior Walls				Wood		✓		✓		✓		2nd 3,420					
Siding				Masonry Bk. Brk.		✓		✓		✓		6,840 Total sprinkled					
Masonry Bk. Brk.				Glass		✓		✓		✓							
Steel				8' x 38' wood-framed glass		✓		✓		✓							
Glass				Unfinished		✓		✓		✓							
8' x 38' wood-framed glass				Finished Open		✓		✓		✓							
Finish				Finished Divd.		✓		✓		✓							
Unfinished				Heat		✓		✓		✓							
Finished Open				Cent. Wm. Air		✓		✓		✓							
Finished Divd.				Ht. Wt/Steam		✓		✓		✓							
Heat				Unit Heaters		✓		✓		✓							
Cent. Wm. Air				None		✓		✓		✓							
Ht. Wt/Steam				Air Conditioning		✓		✓		✓							
Unit Heaters				Central		✓		✓		✓							
None				Unit		✓		✓		✓							
Air Conditioning				None		✓		✓		✓							
Central				Roofing		✓		✓		✓							
Unit				Composition		✓		✓		✓							
None				Shingle		✓		✓		✓							
Composition				Slate		✓		✓		✓							
Slate				Frame		✓		✓		✓							
Frame				Wood		✓		✓		✓							
Wood				Steel		✓		✓		✓							
Steel				Conc.		✓		✓		✓							
Conc.				Plumbing Type		✓		✓		✓							
Plumbing Type				1		✓		✓		✓							
1				2		✓		✓		✓							
2				3		✓		✓		✓							
3				4		✓		✓		✓							
4				1st & 2nd		✓		✓		✓							
1st & 2nd				Sprinkler		✓		✓		✓							
Sprinkler				Total full value other buildings		✓		✓									

Listing a property

Now that you are familiar with the commercial schedules, you are going to list a commercial building.

The PRC-4 on the opposite page is completed, based on the following information. Refer to it as you go through this line-by-line example.

The subject property is a 2-story brick commercial-type building that was constructed 25 years ago. The first floor is used as a store, and is classified as finished open. The second floor is used as office spaces, and is classified as finished divided. The basement is vacant, and is classified as unfinished.

A quality grade of “C” has been assigned to this structure denoting the use of average materials and workmanship. The physical condition of the subject building was compared to other 20 to 30-year old brick buildings within the area, and was considered to be “average.” Based upon its use, and on the location of the subject property within the downtown area, the desirability and utility is found to be “good.”

The structure measures 90' x 38'. The east wall of the structure, measuring 90', is a party wall.

Foundation is the first item under the construction specifications on the PRC-4. As its title implies, foundation refers to the strong base upon which a building is constructed. The structure has concrete walls with spread footings. The basement floor is concrete.

- ✓ Check “spread footing” on the PRC-4.

The next items are **Wall Framing** and **Floors**.

- ✓ Check “wood framing” and “load bearing” for first and second floors. Under floors, check “concrete” for basement, and “wood” for first and second floors. Circle “wood” for framing.

Property Record														
Construction Specifications										Use				
Foundation										Store				
Sptd. Flg.										Apt.				
Caisson										WH				
Other										Factory				
Vacant										Abandoned				
Wall Framing										No. of Units				
B 1 2 3 A										Avg. Unit Size				
Wood										No. Rooms Per Unit				
Steel O/P										Prorated @ ____ % with:				
Reinf. Concrete														
Load Bearing														
Frame Bay - Bay Area										SF				
Floors														
Wood														
Steel O/P														
Reinf. Concrete														
Frame										Wood Steel Conc.				
Exterior Walls														
Siding														
Masonry Blk./Brk.														
Steel														
Glass														
Finish														
Unfinished														
Finished Open														
Finished Divd.														
Heat														
Cent. Wm. Air														
Ht. Wt. Steam														
Unit Heaters														
None														
Air Conditioning														
Central														
Unit														
None														
Roofing										Type No. Construction				
Composition										Shingle				
Slate										Metal				
Frame										Wood Steel Conc.				
Plumbing Type														
1										2				
3										4				
Sprinkler										Listed by: Date:				

PRC-4 (R-1/00) (opposite PRC-3)

The next area is **Exterior Walls**. The exterior of the building is brick. There is also 8' x 38' of wood-framed glass surrounded by brick on the store front.

Circle "masonry" and "brick" and ✓ check first and second floors. Add a notation of 8' x 38' front on the blank line provide.

Finish is the next area in the construction specification column. This refers to the manner in which the various floors are finished or divided. Look at all areas floor by floor.

✓ Check "unfinished" for the basement. The wall height is 9', that is noted for later use.

The first floor is a store. It is classified as finished open, even though there is minimal partitioning that would automatically be included in the base price. The ceiling height is 15'.

✓ Check "finished open" for the first floor.

The second floor is used as offices. It is classified as finished divided. The ceiling height is 10'. The base price on the schedules is higher for finished divided to take into account the extra expense of partitioning.

✓ Check "finished divided" for the second floor.

Heat is the next item on the PRC-4. As noted earlier, the building has a central warm air system.

✓ Check "central warm air" on the first and second floors.

Air conditioning is the next item. The building has central air conditioning mounted on the roof for the first and second floors.

- ✓ Check “central air” for the first and second floors.

Roofing is the next item. The roof is constructed of wood frame with wood deck and built-up composition cover.

- ✓ Check the box for “composition roof” and circle “wood” for the framing.

Plumbing is the final item in the construction specification column. A survey of the building reveals that there are 14 “type 2” commercial fixtures. The building also has a sprinkler system on the first and second floors. List next to sprinkler “1st and 2nd.”

In the **Use** category of the PRC-4, place a “1” next to the box marked “store,” a “B” next to the box marked “vacant,” and a “2” next to the box marked “offices.”

Now that you have completed the walk-through of the construction specification and use portions of the PRC-4, the next step is to complete the **data bank**. The first item in the data bank requires the calculation of the **S/F Ground Area** (SFGA). As noted in the Math for Assessors section at the beginning of the workbook, this formula is

$$\text{SFGA} = \text{length} \times \text{width}$$

From the field notes and diagram, note that the structure measures 38' x 90'. Therefore, write “3,420” in the “S/F Ground Area.”

$$38' \times 90' = 3,420 \text{ square feet}$$

The next item in the data bank is the **Eff perim L/F** (EP). As noted in the Math for Assessors section at the beginning of this workbook, when calculating an EP, if there is a party wall, factor that dimension at 60 percent. As

noted in the field notes, the east wall of the structure is a party wall. Therefore, in calculating the EP, the east wall of 90' would be factored at 60 percent, or 54'. The formula for the EP is

$$EP = \text{length} + \text{width} + \text{length} + \text{width}$$

$$38' + 90' + 54' + 38' = 220'$$

The next item to calculate is the **C/F of Bldg** (CF). Multiply the SFGA times the overall height (OH). Remember that the OH includes the basement.

$$CF = \text{SFGA} \times \text{OH}$$

$$3,420 \times 34 = 116,280 \text{ cubic feet}$$

The next item in the data bank is the **S/F Wall Area** (SFWA). To calculate the SFWA, multiply the EP by the OH. You do not need to concern yourself with the party wall again because it is already factored in the original calculation of the EP.

$$\text{SFWA} = \text{EP} \times \text{OH}$$

$$220' \times 34' = 7,480$$

The final item in the data bank is the **Wall Ratio** (WR). Looking at the data bank, use the two line items directly above the wall ratio for the calculation. Take the CF of the structure and divide it by the SFWA.

$$\text{WR} = \text{CF} \div \text{SFWA}$$

$$116,280 \div 7,480 = 15.55$$

Wall ratios should be carried two decimal places.

Now that the data bank is completed, consult the commercial square feet schedules in the IRPAM and calculate its value on the following pages.

The second floor is used as offices. It is classified as “finished divided.” Look at the schedules in the column under “wood joists” brick/stone. Use the line for “finished office” and select the value of \$57.75 for the base price.

Multiply the base price of \$57.75 by the height adjustment of 98 percent (.98) to arrive at an adjusted price for the second floor of \$56.60.

Add the value for the basement of \$30.90, the first floor of \$58.53, and the second floor of \$56.60, to arrive at a base price of \$146.03 per SF. This is the base price after adjusting the values for any variances in height.

The next line in the computation ladder is for the **BPA**. The BPA factor is used to adjust the schedules for size, shape, and weight, if necessary.

To determine the “size” factor, reference the “**size adjustment factors**” schedule. This factor is based on the square feet of ground area. The structure has 3,420 square feet. Looking at the schedule, note the factor for 3,001 to 10,500 square feet is 1.00.

The “shape” factor is determined by the wall ratio of the structure. Looking at the data bank, note the wall ratio for the structure is 15.55. The shape adjustment factors are listed in the **Commercial Building Shape Adjustment Table**. Look in the column “wall ratio” to find the figure and then look at the number in the column “adjustment factor” directly below to find the factor. 15.55 is closer to 16 than 15, so the factor would be 1.08.

The third component of the BPA factor is the factor for weight. Structures either will be of load bearing construction, where the exterior walls of the structure support its weight, or the structure will have frame bays. It was noted in the construction specifications for the structure that the walls were load bearing. Look at the schedule in the “**wood joists**” **brick/stone**, note that no adjustment is necessary so our factor would be 100 percent.

Once the factors for size, shape, and weight are determined, chain multiply to arrive at one BPA factor.

$$\text{BPA} = \text{size factor} \times \text{shape factor} \times \text{weight factor}$$

$$1.00 \times 1.08 \times 1.00 = 1.08 \text{ BPA factor}$$

Multiply the base price of \$146.03 by the BPA of 1.08, to arrive at an adjusted price of \$157.71.

The next item in the computation ladder is **heat**. Heating is included in the base price. The structure is heated so no adjustment is necessary.

The first and second floors have central air conditioning. Air conditioning is not included in the base price, so an addition is necessary. Go to the commercial subsidiary schedules to find the values for store and office. To arrive at the value, determine values per floor by use, and then add those values together to arrive at one air conditioning adjustment value.

$$1\text{st floor} = \$5.45 + 2\text{nd floor} = \$6.35 = \$11.80 \text{ total air conditioning adjustment}$$

The base price includes normal electrical lighting, so no adjustment is necessary.

The next item is for the **sprinkler system**. The value placed in the computation ladder represents the cost for all floors sprinkled. To arrive at this value, calculate the total square foot area sprinkled, then from the cost schedule determine the base price, add this base price to each floor and place the sum in the computation ladder.

There are 3,420 square feet sprinkled on the first floor, and 3,420 square feet sprinkled on the second floor for a total sprinkled area of 6,840 square feet.

Look at the schedule, note the value for 5,001 - 10,000 square feet is \$3.20. Add \$3.20 for each floor sprinkled to arrive at one base price, which is multiplied by the square feet of the ground area later.

1st floor = \$3.20 + 2nd floor = \$3.20, for a total sprinkled value of \$6.40, which is placed in the computation ladder.

There are no other items to cost out. The next step is to determine the square foot (SF) price. Simply start with the adjusted base price (ABP) and add the cost of the air conditioning and sprinkling.

$$\text{ABP } \$157.71 + (\text{AC}) \$11.80 + (\text{Sprinkler}) \$6.40 = (\text{SF price}) \$175.91$$

Multiply the SF price by the SFGA (refer to the data bank) to arrive at a subtotal.

$$\$175.91 \times 3,420 \text{ SF} = \$601,612$$

The next item in the computation ladder is for **plumbing**. There are 14 “type 2” commercial fixtures. Look at the **plumbing** schedule, note that a “type 2” fixture carries a value of \$3,590. The total plumbing adjustment is found by multiplying the number of fixtures (14) by the cost per fixture (\$3,590).

$$\$3,590 \times 14 = \$50,260$$

You do not have to make any adjustment for partitions, since they were factored in the base prices.

The field notes list an 8' x 38' area of wood-framed glass surrounded by brick on the store front for a total area of 304 square feet. Look at the schedules for “**Store Fronts,**” wood-framed glass with brick, note a rate of \$13.20 per SF to arrive at a value of \$ 4,013.

$$8' \times 38' = 304 \times \$13.20 = \$4,013$$

You do not have to make an adjustments for canopy or docks.

Add the plumbing adjustment of \$50,260 and the store front adjustment of \$4,013 to the base price of \$601,612 to arrive at a total of \$655,885.

The building has a quality grade of “C,” due to the average materials and workmanship used in its construction. Look at the schedule for “**Quality**,” note the factor for a “C” grade is 100 percent. Multiply the total of \$655,885 x 100 percent (1.00) to arrive at a RCN of \$655,885.

The \$655,885 represents what it would cost to construct this structure today. Since the structure was built 25 years ago, you must factor in depreciation.

Look at the **Commercial REL Depreciation Table**. The left column is “**age considering physical condition**.” The structure is 25 years old. When comparing it to other structures in the area its condition was comparable to other 20 to 30-year old brick structures, so its physical condition was rated as “average.” Therefore, its age considering physical condition would be 25.

The building is located in the downtown area and its desirability and utility are “good.”

The “effective age” column considering “desirability and utility” gives us an effective age for this improvement of “20.” Look at Schedule B for structures with an effective age equal to 20, the REL factor is 60 percent. Take 60 percent of the RCN of \$655,885 for a full value for the structure of \$393,531.

There are no other buildings, so it is not necessary to fill out the **Summary of Other Buildings** portion of the PRC-4.

The following schedules show how the values were obtained.

Commercial Square Foot Schedule

Base prices								
The base price includes amounts for excavation, foundation, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Supermarkets and discount centers also include air conditioning and sprinklers. Pre-engineered stores and offices include sprinklers, as well. Other features are to be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarket, discount, and pre-engineered steel store and office use classes. For all other use classes, the given price is to be adjusted by a factor from the building shape adjustment table.								
Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/ stone	Block/ steel	Brick/ stone	Block/ steel	Brick/ stone	Block/ steel
Basement	9'	Unfinished	\$30.90	\$30.90	\$44.15	\$44.15	\$43.35	\$43.35
		Fin. store	39.90	39.90	53.15	53.15	52.35	52.35
		Fin. office	56.45	56.45	69.95	69.95	69.15	69.15
		Fin. apartments	50.20	50.20	63.45	63.45	62.65	62.65
First floor	14'	Store	57.95	55.60	69.60	66.10	72.10	68.60
		Office	71.80	69.45	83.75	80.25	86.25	82.75
		Discount center	---	---	53.55	53.35	---	---
		Supermarket	---	---	62.75	61.05	---	---
Upper floors	12'	Finished open	43.90	41.85	59.60	56.60	58.40	55.40
		Store	44.70	42.70	60.40	57.45	59.25	56.25
		Office	57.75	55.75	73.80	70.80	72.70	69.70
		Apartments	62.40	60.40	78.85	75.85	77.65	74.65
L/B construction adjustment			1.00		0.82		0.84	
Structural construction weight adjustment factors			Frame Bay					
			Size	Adj.	Size	Adj.	Size	Adj.
			under 401	0.95	under 401	0.91	under 401	0.91
			401-1,200	1.00	401-1,200	1.00	401-1,200	1.00
			1,201-2,000	1.11	1,201-2,000	1.09	1,201-2,000	1.09
			over 2,000	1.21	over 2,000	1.18	over 2,000	1.18
Wall height adjustment			Add or deduct for each foot of wall height variation..... 1%					
Size adjustment factors			For buildings of less than 3,001 SF, multiply by..... 1.05					
			For buildings 3,001 to 10,500 SF, multiply by..... 1.00					
			For buildings 10,501 to 13,300 SF, multiply by..... 0.95					
			For buildings 13,301 to 21,000 SF, multiply by..... 0.90					
			For buildings over 21,000 SF, estimate building costs from CIP schedules.					
One story on slab	14'	Pre-engineered store.....	\$46.65	The framing includes features specified in the Pre-engineered Building Schedule.				
		Pre-engineered office.....	56.40					

Commercial building shape adjustment table										
Wall ratio = cubic feet ÷ sq. ft. wall area										
Wall ratio	7	7.5	8	8.5	9	9.5	10	10.5	11	12
Adjustment factor	1.54	1.48	1.43	1.39	1.35	1.32	1.29	1.26	1.24	1.20
Wall ratio	13	14	15	16	17	18	19	20	22	24
Adjustment factor	1.16	1.13	1.10	1.08	1.05	1.04	1.02	1.00	0.98	0.96
Wall ratio	26	28	30	32	34	36	38	40		
Adjustment factor	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86		

Commercial Subsidiary Schedules

Additions		
Item	Cost	
Plumbing (per each existing fixture)		
residential (type 1)	\$1,465	
commercial (type 2)	3,590	
special (refer to CIP Schedule)		
Air conditioning (per SFSA)		
apartments*	\$5.60	
store	5.45	
office	6.35	
*For buildings and heating systems that do not require ducts, add 40%.		
Sprinkler system (per SFSA)		
through 1,000 SF	\$5.00	
1,001 - 2,000	5.55	
2,001 - 5,000	3.45	
5,001 - 10,000	3.20	
over 10,000	3.10	
Mezzanines (cost per SFFA)		
Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable, typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish components.		
Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	\$17.75	\$23.15
Store, display (fin. open)	29.55	41.70
Storage	17.55	23.15
Office (fin. divided)	39.60	56.60
For wood framed mezzanines, use 65% of the steel cost.		
Yard paving	Per SFSA	
asphalt	\$2.25	
concrete parking	3.25	
concrete truck drive	4.45	
crushed stone	1.30	

Quality				
AA	+50	338%	C	100%
	+25	281%		-5 95%
	+10	248%		±10 90%
		225%		+5 86%
	+40	210%	D	82%
A	+30	195%		-5 78%
	+20	180%		-10 74%
	+10	165%		-20 66%
	+5	158%		-30 57%
B		150%	E	50%
	-5	143%		-10 45%
	±10	135%		-20 40%
	+5	128%		-30 35%
		122%		-40 30%
	-5	116%		-50 25%
	±10	110%		
	+5	105%		

Store Fronts	
Type	Per SF display area*
Wood framed glass & trim with	
wood siding	\$11.45
brick	13.20
ceramic	13.65
marble or granite	20.80
Steel framed glass & aluminum trim with	
brick	18.45
ceramic	18.90
marble or granite	26.05
Steel framed glass & stainless steel or bronze trim with	
brick	27.35
ceramic	27.85
marble or granite	35.00
*In calculating the total display area include surface area of all glass, sign, and bulkhead areas, including entrance way, islands, etc.	
Additions to basic store fronts	
Display platforms (per SF)	\$6.40
Display ceiling (per SF)	3.90
Display back (per SF)	6.80
Entrance doors	
Revolving door, each	\$32,850
Hinged aluminum & glass, each	1,300
Hinged bronze or stainless, each	2,700
Sliding panel, aluminum & glass (per SF)	25.95
Add for bronze or stainless steel	25%
Add for automatic door opener (per door)	4,800
Security gates	
Scissor type folding gate painted steel, each	\$800
14 roll-up grille, alum. manual, each	
4' high x 4' long	1,905
4' high x 6' long	1,965
4' high x 8' long	2,295
4' high x 12' long	2,600
4' high x 16' long	3,375
6' high x 4' long	1,995
6' high x 6' long	2,085
6' high x 8' long	2,385
6' high x 12' long	2,980
6' high x 16' long	3,850
Marquees (per SF)	
Plain, steel framed	\$27.95
Ornamental, steel framed	35.90
Plain, wood framed	25.95
Wood or stucco, wood framed	22.80
Illuminated plastic, single face	83.20

Commercial REL Table

Schedule A						Schedule B	
Age* considering physical condition	Effective age considering desirability and utility					REL	
						Eff. age	REL
1	1	1	1	6	11	1	98
2	1	1	2	7	12	2	96
3	1	1	3	8	13	3	94
4	1	1	4	9	14	4	92
5	1	1	5	10	15	5	90
6	1	1	6	11	16	6	88
7	1	2	7	12	17	7	86
8	1	3	8	13	18	8	84
9	1	4	9	14	19	9	82
10	1	5	10	15	20	10	80
11	1	6	11	16	21	11	78
12	2	7	12	17	22	12	76
13	3	8	13	18	23	13	74
14	4	9	14	19	24	14	72
15	5	10	15	20	25	15	70
16	6	11	16	21	26	16	68
17	7	12	17	22	27	17	66
18	8	13	18	23	28	18	64
19	9	14	19	24	29	19	62
20	10	15	20	25	30	20	60
21	11	16	21	26	31	21	58
22	12	17	22	27	32	22	56
23	13	18	23	28	33	23	54
24	14	19	24	29	34	24	52
25	15	20	25	30	35	25	50
26	16	21	26	31	36	26	48
27	17	22	27	32	37	27	46
28	18	23	28	33	38	28	44
29	19	24	29	34	39	29	42
30	20	25	30	35	40	30	40
31	21	26	31	36	41	31	38
32	22	27	32	37	42	32	36
33	23	28	33	38	43	33	34
34	24	29	34	39	44	34	32
35	25	30	35	40	45	35	30
36	26	31	36	41	—	36	28
37	27	32	37	42	—	37	26
38	28	33	38	43	—	38	24
39	29	34	39	44	—	39	22
40	30	35	40	45	—	40	20
41	31	36	41	—	—	41	18
42	32	37	42	—	—	42	16
43	33	38	43	—	—	43	14
44	34	39	44	—	—	44	12
45	35	40	45	—	—	45	10
46	36	41	—	—	—	over 45	10
47	37	42	—	—	—	*Actual age and effective age are the same when physical condition of improvement is average.	
48	38	43	—	—	—		
49	39	44	—	—	—		
50	40	45	—	—	—		

Commercial Square Foot Schedule

Base prices								
The base price includes amounts for excavation, foundation, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating, and lighting. Supermarkets and discount centers also include air conditioning and sprinklers. Pre-engineered stores and offices include sprinklers, as well. Other features are to be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarket, discount, and pre-engineered steel store and office use classes. For all other use classes, the given price is to be adjusted by a factor from the building shape adjustment table.								
Story	Wall height	Use type	Wood joists		Steel frame		Concrete frame	
			Brick/ stone	Block/ steel	Brick/ stone	Block/ steel	Brick/ stone	Block/ steel
Basement	9'	Unfinished	\$30.90	\$30.90	\$44.15	\$44.15	\$43.35	\$43.35
		Fin. store	39.90	39.90	53.15	53.15	52.35	52.35
		Fin. office	56.45	56.45	69.95	69.95	69.15	69.15
		Fin. apartments	50.20	50.20	63.45	63.45	62.65	62.65
First floor	14'	Store	57.95	55.60	69.60	66.10	72.10	68.60
		Office	71.80	69.45	83.75	80.25	86.25	82.75
		Discount center	---	---	53.55	53.35	---	---
		Supermarket	---	---	62.75	61.05	---	---
Upper floors	12'	Finished open	43.90	41.85	59.60	56.60	58.40	55.40
		Store	44.70	42.70	60.40	57.45	59.25	56.25
		Office	57.75	55.75	73.80	70.80	72.70	69.70
		Apartments	62.40	60.40	78.85	75.85	77.65	74.65
L/B construction adjustment			1.00		0.82		0.84	
Structural construction weight adjustment factors			Frame Bay					
			Size	Adj.	Size	Adj.	Size	Adj.
			under 401	0.95	under 401	0.91	under 401	0.91
			401-1,200	1.00	401-1,200	1.00	401-1,200	1.00
			1,201-2,000	1.11	1,201-2,000	1.09	1,201-2,000	1.09
			over 2,000	1.21	over 2,000	1.18	over 2,000	1.18
Wall height adjustment			Add or deduct for each foot of wall height variation..... 1%					
Size adjustment factors			For buildings of less than 3,001 SF, multiply by..... 1.05					
			For buildings 3,001 to 10,500 SF, multiply by..... 1.00					
			For buildings 10,501 to 13,300 SF, multiply by..... 0.95					
			For buildings 13,301 to 21,000 SF, multiply by..... 0.90					
			For buildings over 21,000 SF, estimate building costs from CIP schedules.					
One story on slab	14'	Pre-engineered store.....	\$46.65	The framing includes features specified in the Pre-engineered Building Schedule.				
		Pre-engineered office.....	56.40					

Commercial building shape adjustment table										
Wall ratio = cubic feet ÷ sq. ft. wall area										
Wall ratio	7	7.5	8	8.5	9	9.5	10	10.5	11	12
Adjustment factor	1.54	1.48	1.43	1.39	1.35	1.32	1.29	1.26	1.24	1.20
Wall ratio	13	14	15	16	17	18	19	20	22	24
Adjustment factor	1.16	1.13	1.10	1.08	1.05	1.04	1.02	1.00	0.98	0.96
Wall ratio	26	28	30	32	34	36	38	40		
Adjustment factor	0.94	0.92	0.91	0.90	0.89	0.88	0.87	0.86		

Commercial Subsidiary Schedules

Additions		
Item	Cost	
Plumbing (per each existing fixture)		
residential (type 1)	\$1,465	
commercial (type 2)	3,590	
special (refer to CIP Schedule)		
Air conditioning (per SFSA)		
apartments*	\$5.60	
store	5.45	
office	6.35	
*For buildings and heating systems that do not require ducts, add 40%.		
Sprinkler system (per SFSA)		
through 1,000 SF	\$5.00	
1,001 - 2,000	5.55	
2,001 - 5,000	3.45	
5,001 - 10,000	3.20	
over 10,000	3.10	
Mezzanines (cost per SFFA)		
Mezzanine costs include the framing support system, the floor system, stairways, and lighting. Where applicable, typical partitioning, floor, wall, and ceiling finishes are also included. A height adjustment is not applicable to the mezzanine cost. Mezzanines created by a structural floor over interior partitions should be priced by using appropriate CIP schedules for each construction and/or finish components.		
Mezzanine finish	Construction	
	Steel framed	Concrete framed
Unfinished	\$17.75	\$23.15
Store, display (fin. open)	29.55	41.70
Storage	17.55	23.15
Office (fin. divided)	39.60	56.60
For wood framed mezzanines, use 65% of the steel cost.		
Yard paving	Per SFSA	
asphalt	\$2.25	
concrete parking	3.25	
concrete truck drive	4.45	
crushed stone	1.30	

Store Fronts	
Type	Per SF display area*
Wood framed glass & trim with	
wood siding	\$11.45
brick	13.20
ceramic	13.65
marble or granite	20.80
Steel framed glass & aluminum trim with	
brick	18.45
ceramic	18.90
marble or granite	26.05
Steel framed glass & stainless steel or bronze trim with	
brick	27.35
ceramic	27.85
marble or granite	35.00
*In calculating the total display area include surface area of all glass, sign, and bulkhead areas, including entrance way, islands, etc.	
Additions to basic store fronts	
Display platforms (per SF)	\$6.40
Display ceiling (per SF)	3.90
Display back (per SF)	6.80
Entrance doors	
Revolving door, each	\$32,850
Hinged aluminum & glass, each	1,300
Hinged bronze or stainless, each	2,700
Sliding panel, aluminum & glass (per SF)	25.95
Add for bronze or stainless steel	25%
Add for automatic door opener (per door)	4,800
Security gates	
Scissor type folding gate painted steel, each	\$800
14 roll-up grille, alum. manual, each	
4' high x 4' long	1,905
4' high x 6' long	1,965
4' high x 8' long	2,295
4' high x 12' long	2,600
4' high x 16' long	3,375
6' high x 4' long	1,995
6' high x 6' long	2,085
6' high x 8' long	2,385
6' high x 12' long	2,980
6' high x 16' long	3,850
Marquees (per SF)	
Plain, steel framed	\$27.95
Ornamental, steel framed	35.90
Plain, wood framed	25.95
Wood or stucco, wood framed	22.80
Illuminated plastic, single face	83.20

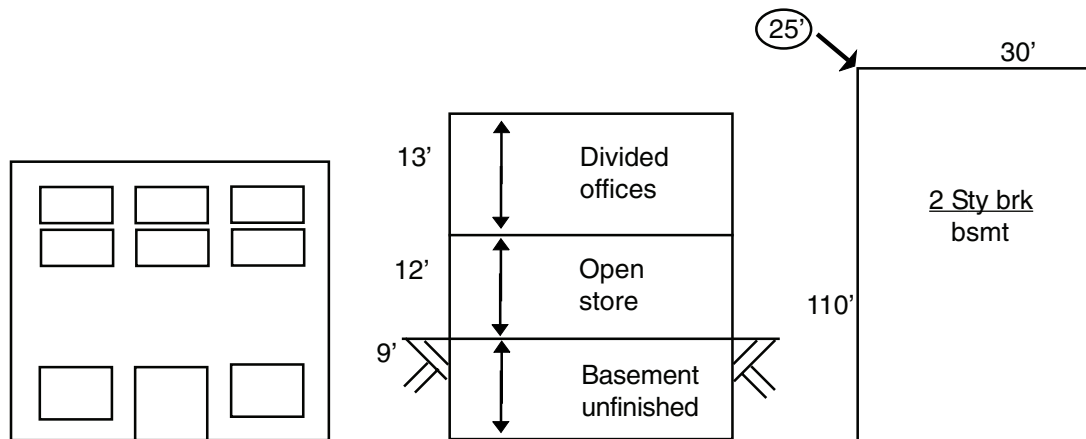
Quality					
AA	+50	338%	C	100%	
	+25	281%		-5	95%
	+10	248%		±10	90%
		225%		+5	86%
	+40	210%	D	82%	
A	+30	195%		-5	78%
	+20	180%		-10	74%
	+10	165%		-20	66%
	+5	158%		-30	57%
		150%	E	50%	
B	-5	143%		-10	45%
	±10	135%		-20	40%
	+5	128%		-30	35%
		122%		-40	30%
	-5	116%		-50	25%
	±10	110%			
	+5	105%			

Commercial REL Table

Schedule A						Schedule B	
Age* considering physical condition	Effective age considering desirability and utility					REL	
	E	G	A	P	U	Eff. age	REL
1	1	1	1	6	11	1	98
2	1	1	2	7	12	2	96
3	1	1	3	8	13	3	94
4	1	1	4	9	14	4	92
5	1	1	5	10	15	5	90
6	1	1	6	11	16	6	88
7	1	2	7	12	17	7	86
8	1	3	8	13	18	8	84
9	1	4	9	14	19	9	82
10	1	5	10	15	20	10	80
11	1	6	11	16	21	11	78
12	2	7	12	17	22	12	76
13	3	8	13	18	23	13	74
14	4	9	14	19	24	14	72
15	5	10	15	20	25	15	70
16	6	11	16	21	26	16	68
17	7	12	17	22	27	17	66
18	8	13	18	23	28	18	64
19	9	14	19	24	29	19	62
20	10	15	20	25	30	20	60
21	11	16	21	26	31	21	58
22	12	17	22	27	32	22	56
23	13	18	23	28	33	23	54
24	14	19	24	29	34	24	52
25	15	20	25	30	35	25	50
26	16	21	26	31	36	26	48
27	17	22	27	32	37	27	46
28	18	23	28	33	38	28	44
29	19	24	29	34	39	29	42
30	20	25	30	35	40	30	40
31	21	26	31	36	41	31	38
32	22	27	32	37	42	32	36
33	23	28	33	38	43	33	34
34	24	29	34	39	44	34	32
35	25	30	35	40	45	35	30
36	26	31	36	41	—	36	28
37	27	32	37	42	—	37	26
38	28	33	38	43	—	38	24
39	29	34	39	44	—	39	22
40	30	35	40	45	—	40	20
41	31	36	41	—	—	41	18
42	32	37	42	—	—	42	16
43	33	38	43	—	—	43	14
44	34	39	44	—	—	44	12
45	35	40	45	—	—	45	10
46	36	41	—	—	—	over 45	10
47	37	42	—	—	—	*Actual age and effective age are the same when physical condition of improvement is average.	
48	38	43	—	—	—		
49	39	44	—	—	—		
50	40	45	—	—	—		

Exercise 8-1

Commercial square foot schedules



PIN: 02-20-200-001

The subject property is a 2-story brick commercial-type building. The second floor is presently divided and used as insurance offices and the first floor is used as a shoe store. The building is 12 years old, has a quality grade of "C," its physical condition is average; the desirability and utility are also average.

Foundation	concrete spread footing and masonry foundation
Wall framing	load bearing
Floors	wood joist and wood sub-floor with typical and average grade finish
Exterior walls	4" brick
Interior finish	typical and average grade according to use (see field drawings above)
Heating/central A/C	first and second floors (only) have a central warm air and air-conditioning system
Roof	wood frame with wood deck and built-up composition cover
Plumbing/sprinkler	12 plumbing fixtures, type 2; the first and second stories are sprinkled with a wet pipe system

Complete the PRC-4 on the opposite page.

253

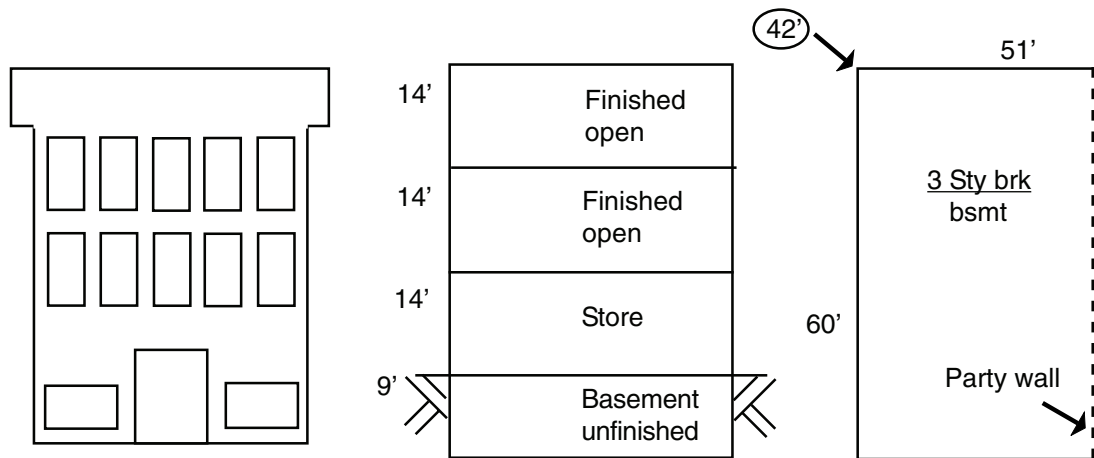
Property Record — Commercial — Industrial

Construction Specifications				Use		Data Bank		Description		Computation	
Foundation				Store	1st Office	2nd	Vacant	B	SF Ground Area	Flr. Price x Ht. Adj.	WH
<div style="display: flex; justify-content: space-between;"> Sprd. Fig. <input checked="" type="checkbox"/> Pile <input type="checkbox"/> </div>				Apt.	WH		Abandoned		Eff. Perim LF		Bsmt.
<div style="display: flex; justify-content: space-between;"> Caisson Otherslab </div>				Factory					CF of Bldg.		1st Floor
<div style="display: flex; justify-content: space-between;"> Wall Framing </div>				No. of Units					SF Wall Area		2nd Floor
<div style="display: flex; justify-content: space-between;"> Wood Steel O/F </div>				Avg. Unit Size					Wall Ratio		3rd Floor
<div style="display: flex; justify-content: space-between;"> Reinf. Concrete </div>				No. Rooms Per Unit							
<div style="display: flex; justify-content: space-between;"> Load Bearing </div>				Prorated @ _____ % with:							
<div style="display: flex; justify-content: space-between;"> Frame Bay - Bay Area </div>											
<div style="display: flex; justify-content: space-between;"> Floors </div>											
<div style="display: flex; justify-content: space-between;"> Wood </div>											
<div style="display: flex; justify-content: space-between;"> Steel O/F </div>											
<div style="display: flex; justify-content: space-between;"> Reinf. Concrete </div>											
<div style="display: flex; justify-content: space-between;"> Frame </div>											
<div style="display: flex; justify-content: space-between;"> Exterior Walls </div>											
<div style="display: flex; justify-content: space-between;"> Siding </div>											
<div style="display: flex; justify-content: space-between;"> Masonry Blk./Brk </div>											
<div style="display: flex; justify-content: space-between;"> Steel </div>											
<div style="display: flex; justify-content: space-between;"> Glass </div>											
<div style="display: flex; justify-content: space-between;"> Finish </div>											
<div style="display: flex; justify-content: space-between;"> Unfinished </div>											
<div style="display: flex; justify-content: space-between;"> Finished Open </div>											
<div style="display: flex; justify-content: space-between;"> Finished Divd. </div>											
<div style="display: flex; justify-content: space-between;"> Heat </div>											
<div style="display: flex; justify-content: space-between;"> Cent. Wm. Air </div>											
<div style="display: flex; justify-content: space-between;"> Ht. Wt/Steam </div>											
<div style="display: flex; justify-content: space-between;"> Unit Heaters </div>											
<div style="display: flex; justify-content: space-between;"> Air Conditioning </div>											
<div style="display: flex; justify-content: space-between;"> None </div>											
<div style="display: flex; justify-content: space-between;"> Central </div>											
<div style="display: flex; justify-content: space-between;"> Unit </div>											
<div style="display: flex; justify-content: space-between;"> None </div>											
<div style="display: flex; justify-content: space-between;"> Roofing </div>											
<div style="display: flex; justify-content: space-between;"> Composition </div>											
<div style="display: flex; justify-content: space-between;"> Shingle </div>											
<div style="display: flex; justify-content: space-between;"> Slate </div>											
<div style="display: flex; justify-content: space-between;"> Frame </div>											
<div style="display: flex; justify-content: space-between;"> Plumbing Type </div>											
<div style="display: flex; justify-content: space-between;"> Wood </div>											
<div style="display: flex; justify-content: space-between;"> Steel </div>											
<div style="display: flex; justify-content: space-between;"> Conc. </div>											
<div style="display: flex; justify-content: space-between;"> 1 </div>											
<div style="display: flex; justify-content: space-between;"> 2 </div>											
<div style="display: flex; justify-content: space-between;"> 3 </div>											
<div style="display: flex; justify-content: space-between;"> 4 </div>											
<div style="display: flex; justify-content: space-between;"> 1st & 2nd F </div>											
<div style="display: flex; justify-content: space-between;"> Sprinkler </div>											

PRC-4 (R-1/00) (opposite PRC-3)

Exercise 8-2

Commercial square foot schedules



PIN: 02-20-200-002

The subject property is a 3-story with full basement mercantile-type building. There is a party wall found on the east side of the building that extends from the basement floor up to the eaves. The first floor is a store and the second and third floors are finished open areas, presently vacant. The structure is 40 years old, has a quality grade of "C," its physical condition is average; the desirability and utility are poor. The cost factor derived from the market study for this jurisdiction is 1.10.

Foundation	concrete spread footing and brick foundation
Wall framing	load bearing with some interior supports, wood frame
Floors	wood joists and wood sub-floor
Exterior walls	12" brick
Interior finish	typical with average grade finish
Heating/central A/C	all floors above grade are centrally heated with forced warm air, only the first floor has central air conditioning
Roof composition cover	roof structure is wood deck and frame with built-up
Plumbing/sprinkler	6 plumbing fixtures, type 2; all three floors above grade are equipped with a wet pipe sprinkler system (ordinary hazard)
Miscellaneous	7' x 84' of steel frame glass and aluminum trim surrounded by brick store front

Complete the PRC-4 on the opposite page.

8-45

Unit 8: Commercial Square Foot Schedules

255

PRC-4 (R-1/00) (opposite PRC-3)

Summary

The IRPAM is a mass appraisal system. The schedules in the manual are based on construction costs in central Illinois. The values given are also based on construction using average quality materials and workmanship. As discussed in Unit 6, there are various factors that can be applied to adjust the IRPAM to reflect the values in various jurisdictions.

The Commercial Square Foot Schedule has been developed for pricing the typical mercantile building of 1-4 stories. The schedule is also appropriate for free-standing mercantile buildings and pre-engineered steel store and office buildings. For large mercantile installations and high rise office complexes, the component-in-place (CIP) method should be used. Apartment buildings should be priced from the apartment schedule. Supermarkets to 32,000 square feet, discount center to 140,000 square feet, and pre-engineered steel store and office buildings to 8,000 square feet can be priced from the commercial schedules. Buildings used for such purposes that exceed these size limitations should be priced using the CIP schedules. The CIP schedules are covered in the Introduction to Commercial Assessment Practices course.

It is important to use the appropriate schedule. As with any cost schedule, the assessor must be aware of the items that are included in the base cost. Before using a schedule, read all of the information on the schedules.

The **base cost** is the cost indicated in the schedules representing the cost of construction per square foot of the structure. The base cost schedules include normal amounts for excavation, foundations, footings, framing, exterior wall construction, floor construction, roof construction, interior construction and finish, insulation, heating and lighting. Air conditioning, and sprinklers are included for supermarkets and discounts centers only. Other features should be priced from the subsidiary schedules or the CIP schedules. A shape or size adjustment is not necessary for supermarkets, discount, and pre-engineered steel store and office use classes. For

all other use classes, the base price must be adjusted by factors from the building size and shape adjustment tables.

The information from the preceding paragraphs is printed at the top of the Commercial Square Foot Schedule, shown on Page 8-3. If you are not sure which items are included in the base price, you should refer to the information on the schedule. If a building has construction features other than those included in the base cost schedules, adjustments to the base cost must be made. Other additions may include such items as plumbing fixtures, air conditioning, and sprinkler systems. The IRPAM includes various supplemental schedules to assist in valuing these variances.

The commercial schedules are used in conjunction with the commercial property record cards (PRCs). PRC-4 is used for listing construction specifications, property use, and for computing building values. PRC-3 (on the opposite side of PRC-4) is used for valuing commercial or industrial land information on the schedule.

You will encounter one commercial PRC on your exam that does not have any narrative. An example of a PRC-4 is shown on Page 8-43.

Unit 8

Review questions

- 1 T or F A commercial building's first floor has a wall height of 16'. The wall height adjustment would be .98.
- 2 T or F A 2-story commercial building with a full basement has a width of 40' and length of 80'. The first floor wall height is 16', basement height is 9', and the second story wall height is 14'. The square feet of wall area would be 7200.
- 3 T or F Using the building specifications above, the wall ratio would be 13.33.
- 4 T or F Always adjust your square feet of ground area (SFGA) by the eave height to arrive at the cubic foot.
- 5 A commercial building with a width of 100' and a length of 200' and an overall height of 36' would have
 - a size adjustment of .95
 - b shape adjustment of .89
 - c load bearing adjustment of .82
 - d frame bay adjustment of 1.00
- 6 A 2-story commercial building on a slab with a length of 70' and a width of 50' is fully sprinkled. What is the sprinkled adjustment?
 - a sprinkler costs are included in base price
 - b sprinkler cost of \$6.40 per square foot
 - c sprinkler cost of \$17,200
 - d sprinkler cost of \$6.20 per square foot
 - e they were too expensive and the landlord could not afford to install them
- 7 Using the same dimensions above, what would be the air conditioning adjustment amount placed in the computation ladder if the first floor was used as a store and the second floor as an office?
 - a \$11.05 per square foot
 - b included in the base price
 - c \$11.80 per square foot
 - d \$12.70 per square foot
 - e \$21,700

Unit 9

Sales Ratio and Equalization

This unit covers the equalization process and the purpose of the sales ratio studies.

The purpose of this unit is to provide a basic understanding of how equalization is used to bring about a fair distribution of the property tax burden, and to teach the skills necessary to perform a simple sales ratio study.

Learning objectives

After completing the assigned readings, you should be able to

- define equalization,
- explain the use of an assessment/sales ratio study, and
- calculate an equalization factor, or multiplier.



Terms and concepts

Equalization
Equalization factor
Median
Market value
Level of assessments
Equalized assessed value (EAV)
Assessment/sales ratio study
Coefficient of dispersion (COD)
Mean

Equalization

Equalization is defined as the application of a uniform percentage increase or decrease to assessed values of various areas or classes of property, to bring assessment levels, on the average, to a uniform percentage of market value.

Assessors, CCAOs, boards of review, and the department have the authority to apply **equalization factors**, sometimes referred to as multipliers. Assessing officials in Cook County do not have the authority to apply equalization factors.

Equalization that occurs within the boundaries of a county is called intra-county equalization. Examples of intra-county equalization include: neighborhood or township multipliers (area equalization) and residential, commercial, or industrial multipliers (class equalization).

Inter-county equalization factors, sometimes called state multipliers, or state equalization factors, are issued annually for each county by the department. The application of these factors to all appropriate property in each county ensures that the **median**, or middle, assessment level in all counties is statutorily at $33\frac{1}{3}$ percent of **market value**. This median is sometimes referred to as the **median level of assessment**, or median assessment level. If a county receives a multiplier of 1.0000, this means that the median assessment level in the county is $33\frac{1}{3}$ percent. Intra-county equalization may be necessary before a $33\frac{1}{3}$ percent level is achieved.

Equalization factors will not correct inequities in individual assessments. Inequities in individual assessments may result in a lack of assessment uniformity within an area or class and may necessitate a reassessment of individual properties before intra-county equalization. The importance of having uniform assessment levels that are grouped closely around the median level of assessments cannot be over-emphasized, because it is the median level of assessments that is adjusted to $33\frac{1}{3}$ percent.

Equalization is the process of applying a factor to each jurisdiction so that all jurisdictions throughout the state have assessment levels at the same average percentage of market value. This example shows how the tax bills of two similar properties in one school district, which overlaps two counties, are affected by unequal assessment levels. The example then shows how the application of an equalization factor establishes equity.

Without applying the equalization factors, the taxpayers in this overlapping taxing district would not pay the same amount to the taxing district, even though both properties have a market value of \$90,000. With the application of equalization factors, the **equalized assessed values (EAV)** of both properties are the same and both property owners share equally in the tax burden.

**Example
with no
equalization**

	County A	County B
Property market value	\$90,000	\$90,000
3-Year average assessment level	33.33%	23.00%
Assessed value (AV)	\$30,000	\$20,700
Overlapping district tax rate		
\$3.43/\$100 EAV	3.43%	3.43%
Tax bill (for district)	\$1,029	\$710

	County A	County B
Equalization factor	$\frac{\text{desired level } 33.33\%}{\text{3-year level } 33.33\%} = 1.0000$	$\frac{33.33\%}{23.00\%} = 1.4491$

**Example
with
equalization**

	County A	County B
Tax bill (for district)	\$1,029	\$710
Same properties' assessed values	\$30,000	\$20,700
Equalization factor	1.0000	1.4491
EAV	\$30,000	\$30,000
Overlapping district tax rate		
\$2.90/\$100 EAV*	2.9%	2.9%
Tax bill (for district)	\$870	\$870

*The increase in EAV resulted in a lower tax rate calculated by the county clerk.

Not all properties are subject to equalization factors. State-assessed properties, coal rights, farmland, and farm buildings are not affected by state multipliers; their assessed values are defined by law as equalized assessed values. However, both the farm residence and homesite are subject to the state multiplier because their assessed values are based on market values.

The assessment/sales ratio study

The primary tool in the equalization process is the **assessment/sales ratio study**. The assessment/sales ratio study provides information on the percentage relationship of assessed value to market value for real property in certain classes of property and geographic areas. This percentage is called the median level of assessment. Assessment/sales ratio studies also provide information on the variation in assessment levels among, and within, these classes of property and geographic areas.

Assessment/sales ratio studies are used

- **In the computation of equalization factors.**

State-issued county multipliers are used by the department to carry out the statutory responsibility of equalizing the levels of assessments among counties (inter-county). Township multipliers are issued by the county (intra-county) to equalize the level of assessments within that county.

- **In the review and appeal of assessments.**

These studies provide a measure of the average assessment level for a given geographic area, or category of property, against which assessments of individual parcels may be judged in determining the degree of any over-assessment or under-assessment.

- **As a diagnostic tool for local assessing officials to evaluate assessment practices.**


It is the responsibility of local assessing officials to use assessment/sales ratio studies to evaluate their assessment policies and make assessment changes, when warranted, so that the final assessments of all property in their jurisdiction are at a uniform percentage of market value.

A minimum of 25 useable sales (arms-length transactions) are needed to conduct an assessment/sales ratio study. Appraisals may also be used if sales are not available.

The following are examples of some types of sales that would **not** be used in an assessment/sales ratio study:

- Land and improvements that are classified as farm,
- Compulsory sales,
- Sales conveying less than full title,
- Sales between related parties,
- Sales involving government organizations,
- Sales involving lending institutions, and
- Sales in which the assessed value and the sales price are not comparable, such as splits, partial assessments, and the destruction of an improvement.

Form PTAX-203, Real Estate Transfer Declaration, referred to as the “RETD,” is the primary source of sale information used in a assessment/sales ratio study. The RETD, a portion of which is shown below, contains information on the amount of the sale, the use of the property, and the conditions of the sale. An RETD must be filed with the county recorder when a deed is recorded. The RETDs are then given to the CCAO, who supplies copies to the township or multi-township assessor.



PTAX-203

Illinois Real Estate Transfer Declaration

Please read the instructions before completing this form.
This form can be completed electronically at tax.illinois.gov/retd.

Step 1: Identify the property and sale information.

1 Street address of property (or 911 address, if available) _____

City or village _____ ZIP _____

Township _____

2 Write the total number of parcels to be transferred. _____

3 Write the parcel identifying numbers and lot sizes or acreage.

Parcel identifying number	Lot size or acreage
a _____	_____
b _____	_____
c _____	_____
d _____	_____

Write additional parcel identifiers and lot sizes or acreage in Step 3.

4 Date of instrument: _____ / _____ / _____
Month Year

5 Type of instrument (Mark with an "X"):

☐ Quit claim deed ☐ Executor deed ☐ Trustee deed
☐ Beneficial interest ☐ Other (specify): _____

6 Yes ☐ No ☐ Will the property be the buyer's principal residence?

7 Yes ☐ No ☐ Was the property advertised for sale?
(i.e., media, sign, newspaper, realtor)

8 Identify the property's current and intended primary use.
Current Intended (Mark **only one item per column** with an "X.")

a <input type="checkbox"/> Land/lot only	
b <input type="checkbox"/> Residence (single-family, condominium, townhome, or duplex)	
c <input type="checkbox"/> Other (specify): _____	

Do not write in this area. County Recorder's Office use.

County: _____

Date: _____

Doc. No.: _____

Vol.: _____

Page: _____

Received by: _____

9 Identify any significant physical changes in the property since January 1 of the previous year and **write the date of the change**.

Date of significant change: _____ / _____ / _____
(Mark with an "X.")

☐ Demolition/damage ☐ Additions ☐ Major remodeling
☐ New construction ☐ Other (specify): _____

10 Identify only the items that apply to this sale. (Mark with an "X.")

a ☐ Fulfillment of installment contract — year contract initiated : _____
b ☐ Sale between related individuals or corporate affiliates
c ☐ Transfer of less than 100 percent interest
d ☐ Court-ordered sale
e ☐ Sale in lieu of foreclosure
f ☐ Condemnation
g ☐ Auction sale
h ☐ Seller/buyer is a relocation company
i ☐ Seller/buyer is a financial institution or government agency
j ☐ Buyer is a real estate investment trust
k ☐ Buyer is a pension fund
l ☐ Buyer is an adjacent property owner
m ☐ Buyer is purchasing an investment property

Assessment uniformity indicators

The most commonly used statistical measure of assessment uniformity is the **coefficient of dispersion (COD)**. The COD provides a measure of the variation of individual assessment ratios around the median level of assessment. If individual ratios are found to be grouped closely around the median, assessments are relatively uniform and the COD will be low. Higher CODs indicate that individual ratios vary widely from the median, and that property is not uniformly assessed. This also indicates that the property tax burden is not fairly distributed among taxpayers in that particular area or jurisdiction.

Assume that a county has a median level of assessment at 30 percent and a COD of 40 percent. The assessment levels of individual properties, on the average, can be expected to deviate from the median level by plus or minus 40 percent, from 18 percent to 42 percent.

Formula for arriving at the COD

Step 1 Determine the sales ratio for each sale.

$$\text{Sales ratio} = \frac{\text{Prior year's assessed value}}{\text{Current year's sale price}} \times 100(\%)$$

Step 2 Rank sales ratios & determine the **median**, or middle value.

Step 3 Calculate deviations of each ratio.

$$\text{Deviation} = \text{sales ratio} - \text{median}^*$$

*When subtracting the median from the sales ratio, ignore plus or minus signs.

Step 4 Find the average deviation.

$$\text{Average deviation} = \frac{\text{Sum of deviations}}{\text{Number of sales}}$$

Step 5 Calculate the COD.

$$\text{COD} = \frac{\text{Average deviation}}{\text{Median}} \times 100(\%)$$

Exercise 9-1

Assessment/sales ratio study and determining a COD

The primary purpose of an assessment/sales ratio study is to determine the median level of assessments for a particular jurisdiction. The assessment/sales ratio study may also be used in determining a COD.

Follow the steps below, and use the worksheet on Page 9-10 for this exercise.

Step 1 Determine the percent relationship of assessed value to actual market value using the sales ratio formula. For each sale, divide the prior year's assessed value by the current year's selling price and then multiply it by 100 to change it to a percent.

$$\text{Sales ratio} = \frac{\text{assessed value}}{\text{sale price}} \times 100(\%) \quad \frac{10,000}{35,000} \times 100 = 28.57\%$$

The first sale has an assessed value for the prior year of \$10,000, and the current year's selling price is \$35,000.

Divide the assessed value of \$10,000 by the sale price of \$35,000, then multiply it by 100 to change to a percent. This gives you a sales ratio of 28.57%.

Round to 2 decimal places consistently throughout this exercise. To round numbers, first carry the answer out 3 decimal places. If the last digit is 5 or greater, round up the number in the second decimal place. If the last digit is less than 5, leave the number in the second decimal place as it is. For example, 28.575 is rounded to 28.58, and 28.571 is rounded to 28.57.

Follow Step 1 to find the sales ratios for the remaining 10 sales.

Step 2 Next, rank all of the ratios and determine the median level of assessments. You may rank your ratios from highest to lowest, or vice versa, since either ranking will produce the same result. In this exercise, rank the ratios from lowest to highest in the space designated in the lower left corner of the worksheet on Page 9-10.

The middle ratio is the median when there are an odd number of ratios. The **mean**, or average, of the middle two ratios is the median when there are an even number of ratios.

This example has an odd number of ratios. When you rank all 11 ratios, starting with the lowest ratio of 15.83% and ending with the highest ratio of 41.18%, the middle ratio, or median, is 28.72%. There are exactly 5 ratios above 28.72%, and 5 ratios below 28.72%. Therefore, for this jurisdiction, the median level of assessments has been determined to be 28.72%. Write the derived median of 28.72% in all of the blank spaces under the median column.

Complete the following steps to determine a COD, which will indicate the degree of uniformity in the assessments.

Step 1 Subtract the median ratio from each of the sale ratios.

Deviation = sales ratio - median* $28.57 - 28.72 = .15$

*When subtracting the median from the sales ratio, ignore plus or minus signs.

For the first sales ratio, take the sales ratio of 28.57 and subtract the median of 28.72. The difference, or deviation, is .15. The second difference is determined by taking the ratio of 41.18 and subtracting the median of 28.72. The difference, or deviation, is 12.46. Again, ignore the plus or minus signs. Continue this process for each remaining ratio.

Step 2 Add all the deviations to obtain the sum of deviations. Write this answer on the line directly below the last deviation of .36.

Add the first deviation of .15 through the last deviation of .36, which gives you a sum of deviations of 50.52.

Step 3 To find the average deviation from the median ratio, divide the sum of deviations by the number of sales.

$$\text{Average deviation} = \frac{\text{sum of deviations}}{\text{\# of sales}} = \frac{50.52}{11} = 4.59$$

Divide the sum of deviations of 50.52 by 11, the number of sales that you have, which gives you an average deviation of 4.59.

Step 4 To determine the COD, divide the average deviation of 4.59 by the median ratio of 28.72, which gives you a COD of 15.98.

$$\text{COD} = \frac{\text{average deviation}}{\text{median}} \times 100(\%) = \frac{4.59}{28.72} \times 100(\%) = 15.98$$

Once you complete Exercise 9-1, refer to the answer key in the back of this booklet to check your answers.

Exercise 9-1 worksheet

Assessment/sales ratio study and determining a COD

Assessed value	Sale price	Sales ratio	Median	Deviation
\$10,000	\$35,000	28.57	_____	_____
17,500	42,500	_____	_____	_____
1,900	12,000	15.83	_____	_____
9,000	26,000	_____	_____	_____
9,000	31,000	29.03	_____	_____
1,400	8,000	_____	_____	_____
7,200	23,000	31.30	_____	_____
8,000	24,500	_____	_____	_____
5,600	19,500	28.72	_____	_____
14,000	50,000	_____	_____	_____
19,000	67,000	28.36	_____	_____

Sum of deviations _____

Sale ratios
ranked

Formulas

1 _____	Sales ratio = $\frac{\text{assessed value}}{\text{sales price}} \times 100(\%)$
2 _____	
3 _____	
4 _____	Deviation = sales ratio - median*
5 _____	
6 _____	Average deviation = $\frac{\text{sum of deviations}}{\text{number of sales}}$
7 _____	
8 _____	
9 _____	COD = $\frac{\text{average deviation}}{\text{median}} \times 100\%$
10 _____	
11 _____	*Ignore plus or minus signs when subtracting the median from the sales ratios.

Exercise 9-2

Assessment/sales ratio study with additional sale

Using the same ratios found in the previous exercise, you will see the effect one additional sale has upon the median level of assessment and the COD.

Step 1 Look at the last sale, which has a prior year's assessed value of **\$3,000**, and a current year's selling price of **\$3,000**. When you divide the assessed value by the sale price, you obtain a sales ratio of **100%**. Comparing this ratio to the statutory level of **33.33%**, you realize that this particular ratio differs greatly from the desired level.

Step 2 Rank all of the ratios, paying particular attention to the fact that you have 12 sales, versus the previous example of 11 sales. When you have an even number of sales, you must first find the mean, or average, of the two middle values to determine the median.

$$28.72 + 29.03 = 57.75$$

$$57.75 \div 2 = 28.88$$

The two middle ratios are **28.72** and **29.03**. Add these two ratios, which gives you a sum of **57.75**. Divide **57.75** by **2** to find the new median.

28.88 is now the median level of assessments for this jurisdiction.

Step 3 Complete the same steps you followed in the previous exercise to determine the COD in this exercise. Subtract the median of **28.88** from each sales ratio to get the deviation, or difference, for each ratio. The additional sale causes the sum of deviations to increase from **50.52** to **121.80**.

Step 4 Divide the sum of deviations of **121.80** by 12, the number of sales you have, which gives you an average deviation of **10.15**.

Step 5 To determine the COD, divide the average deviation of **10.15** by the median of **28.88**. For this example, the one additional sale increases the COD from **15.98** to **35.15**, or from **15.98%** to **35.15%**.

Exercise 9-2 worksheet

Assessment/sales ratio study with additional sale

Assessed value	Sale price	Sales ratio %	Median	Deviation %
\$10,000	\$35,000	28.57	28.88	.31
17,500	42,500	41.18	28.88	12.30
1,900	12,000	15.83	28.88	13.05
9,000	26,000	34.62	28.88	5.74
9,000	31,000	29.03	28.88	.15
1,400	8,000	17.50	28.88	11.38
7,200	23,000	31.30	28.88	2.42
8,000	24,500	32.65	28.88	3.77
5,600	19,500	28.72	28.88	.16
14,000	50,000	28.00	28.88	.88
19,000	67,000	28.36	28.88	.52
3,000	3,000	100.00	28.88	<u>71.12</u>

Sum of deviations 121.80

Sale ratios
ranked

1 15.83

2 17.50

3 28.00

4 28.36

5 28.57

6 28.72

7 29.03

8 31.30

9 32.65

10 34.62

11 41.18

12 100.00

median 28.88

Formulas

Average deviation = $\frac{\text{sum of deviations}}{\text{\# of sales}}$

$$= \frac{121.80}{12} = 10.15$$

COD = $\frac{\text{average deviation}}{\text{median}} \times 100(\%)$

$$= \frac{10.15}{28.88} \times 100(\%)$$

$$= 35.15 \text{ or } 35\%$$

According to the standards of the International Association of Assessing Officers, the COD for residential property should be 15 percent or less, and the COD for vacant land and income-producing property should be 20 percent or less.

In Illinois, a bonus of \$3,000 is paid to assessors who maintain a level of assessment between $31\frac{1}{3}$ percent and $35\frac{1}{3}$ percent and have a COD of no greater than 15. In counties with 50,000 or fewer inhabitants, the COD must be 30 or less.

Summary

Equalization is the process of applying a factor to each jurisdiction so that all jurisdictions throughout the state have assessment levels at the same average percentage of market value.

An **assessment/sales ratio study** is performed to determine the level of assessment in a particular jurisdiction.

The **state equalization factor** is determined by taking the statutory level of assessment and dividing it by the prior 3-year average median level of assessments for a jurisdiction.

Unit 9

Review questions

- 1 T or F Equalization means a factor is applied to each jurisdiction so that all jurisdictions are assessed at the same average percentage of market value.
- 2 T or F A sales ratio study is used to determine the percentage of homes that have sold during a certain period of time.
- 3 T or F The state equalization factor is always 1.0000.
- 4 T or F Only jurisdictions with a COD of 16 qualify for the bonus.

Unit 10

Special Properties

This unit covers valuation procedures for special properties.

The purpose of this unit is to provide a basic understanding of special properties the assessor may encounter.

Learning objectives

After completing the assigned readings, you should be able to identify various types of special properties

Valuation procedures for special properties

Occasionally, some of the property an assessor may encounter is not assessed in the typical fashion and must be handled in a special manner.

Some of these special properties are covered in Article 10 of the Property Tax Code. Many of these properties are assessed by the CCAO, but as a township or multi-township assessor, you should be familiar with such types of properties, and know where to look in the code for specific information in handling these assessments.

Sections 10-5 and 10-10 of the code cover solar energy systems. Section 10-5 states, "It is the policy of this state that the use of solar energy systems should be encouraged because they conserve nonrenewable resources, reduce pollution and promote the health and well-being of the people of this state, and should be valued in relation to these benefits."

Section 10-10 of the code states, “When a solar energy system has been installed in improvements on any property, the owner of that property is entitled to claim, by filing with the chief county assessment officer, an alternate valuation of those improvements.” The value that is assigned remains with the property until it ceases to be used as the means of heating and cooling those improvements. If this happens, the owner must notify the CCAO in writing by certified mail.

Section 10-15 of the code covers condominiums and cooperatives. “In counties with 200,000 or more inhabitants which classify property, condominiums occupied by the owner as a residence for a minimum of 6 months during the year and created in accordance with the provisions of the ‘Condominium Property Act’, as well as land with improvements owned and operated as a cooperative, shall be assessed on the same basis of assessment as single family residences in such counties.”

Section 10-20 of the code covers repairs and maintenance of residential properties. “Maintenance and repairs to residential property owned and used exclusively for a residential purpose shall not increase the assessed valuation of the property. For purposes of this Section, work shall be deemed repair and maintenance when it (1) does not increase the square footage of improvements and does not materially alter the existing character and condition of the structure but is limited to work performed to prolong the life of the existing improvements or to keep the existing improvements in a well maintained condition; and (2) employs materials, such as those used for roofing or siding, whose value is not greater than the replacement values of the materials being replaced.”

For example: If the property owner replaces an asphalt roof with a new asphalt roof, it would be considered maintenance.

Section 10-25 of the code concerns single family residential developments, model homes, townhouses, and condominium units used for display purposes. If the

structure meets the criteria established in this section, “the assessed value of the property on which the dwelling, townhome, or condominium was constructed shall be the same as the assessed value of the property prior to construction.” Refer to Section 10-25 for specific information.

Sections 10-30 and 10-35 of the code pertain to subdivisions and subdivision common areas.

Sections 10-40 through 10-85 of the code deal with the complex issue of assessing historical residences. Several factors are considered in the valuation process, which also involves the Historical Preservation Agency. The process is described at length in the statutes.

Sections 10-110 through 10-169 of the code cover farmland, farm dwellings, forestry management, open space land, land encumbered by conservation rights, and land for public benefit.

Section 10-205 of the code covers sports stadium properties.

Section 10-225 of the code states that “The stock of nurseries, when growing, shall be assessed as property and when severed shall be considered merchandise.”

Sections 11-5 through 11-125 of the code address pollution control facilities, low sulfur dioxide emission coal fueled devices, and railroads. All of these properties are valued by the state.

Note: You will not be responsible for section numbers and specific statutory language.

Summary

The Property Tax Code is an excellent resource for information relating to the assessment of special properties.

Unit 10

Review questions

- 1 List four types of special properties assessors may encounter.

- 2 List two properties assessed by the state.

Unit 11

Mapping and the Property Index Numbering System

This unit covers the Rectangular Survey System and the property index number (PIN).

The purpose of this unit is to provide a basic understanding of legal descriptions and the property index numbering system.

Learning objectives

After completing the assigned readings, you should be able to

- correctly number jurisdictional townships within a county,
- correctly number sections within a township/range tier,
- understand the different types of legal descriptions and how to locate a property,
- define property index number (PIN), and
- explain the composition and use of the segments of a PIN.



Terms and concepts

Principal meridian
Base line
Township
Range
Section
Metes and bounds
Legal description
Property index number (PIN)

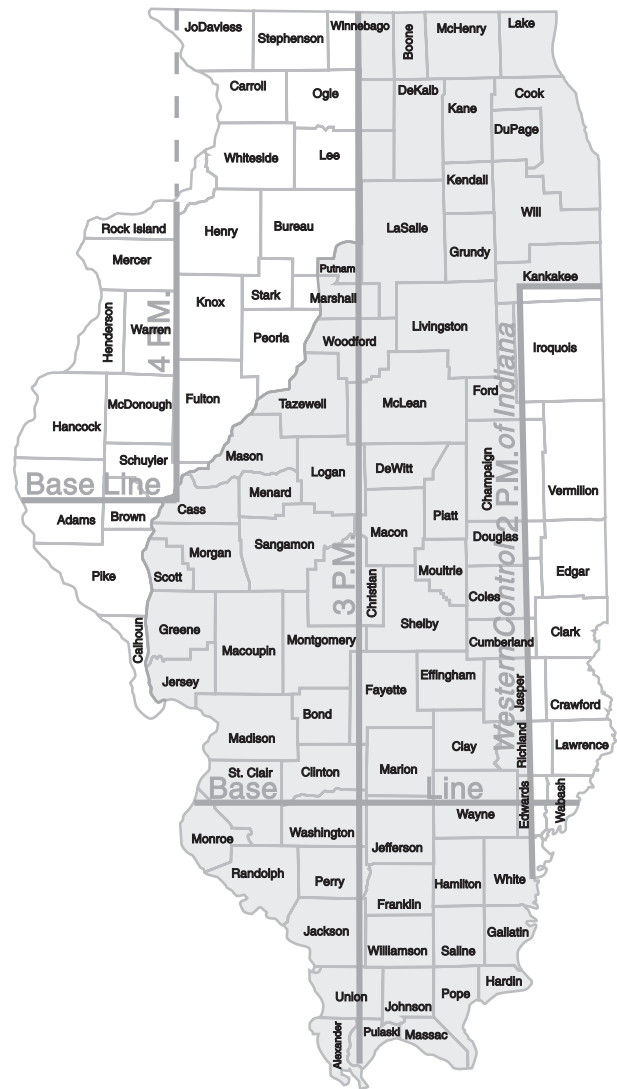
The rectangular survey system

The foundation for most legal descriptions is the Rectangular Survey System, or Governmental Survey System, established in 1785. The Rectangular Survey System is a system by which land is divided in a grid-like fashion, using principal meridians, base lines, townships, ranges, and sections.

Principal meridians run north and south. **Base lines** run east and west. Illinois is governed by three principal meridians and two base lines.

An area of eastern Illinois is governed by the westerly control of the 2nd principal meridian, which is actually located in Indiana. The 3rd principal meridian is the governing point for most of Illinois, and is the only principal meridian that runs between the northern and the southern boundaries of Illinois. The northwest portion of Illinois is governed by the 4th principal meridian.

The 2nd and 3rd principal meridians are governed by a base line that is often referred to as the Centralia Base Line, because it runs through Centralia. The 4th principal meridian is governed by a base line that is often referred to as the Beardstown Base Line, because it runs through the Beardstown area.

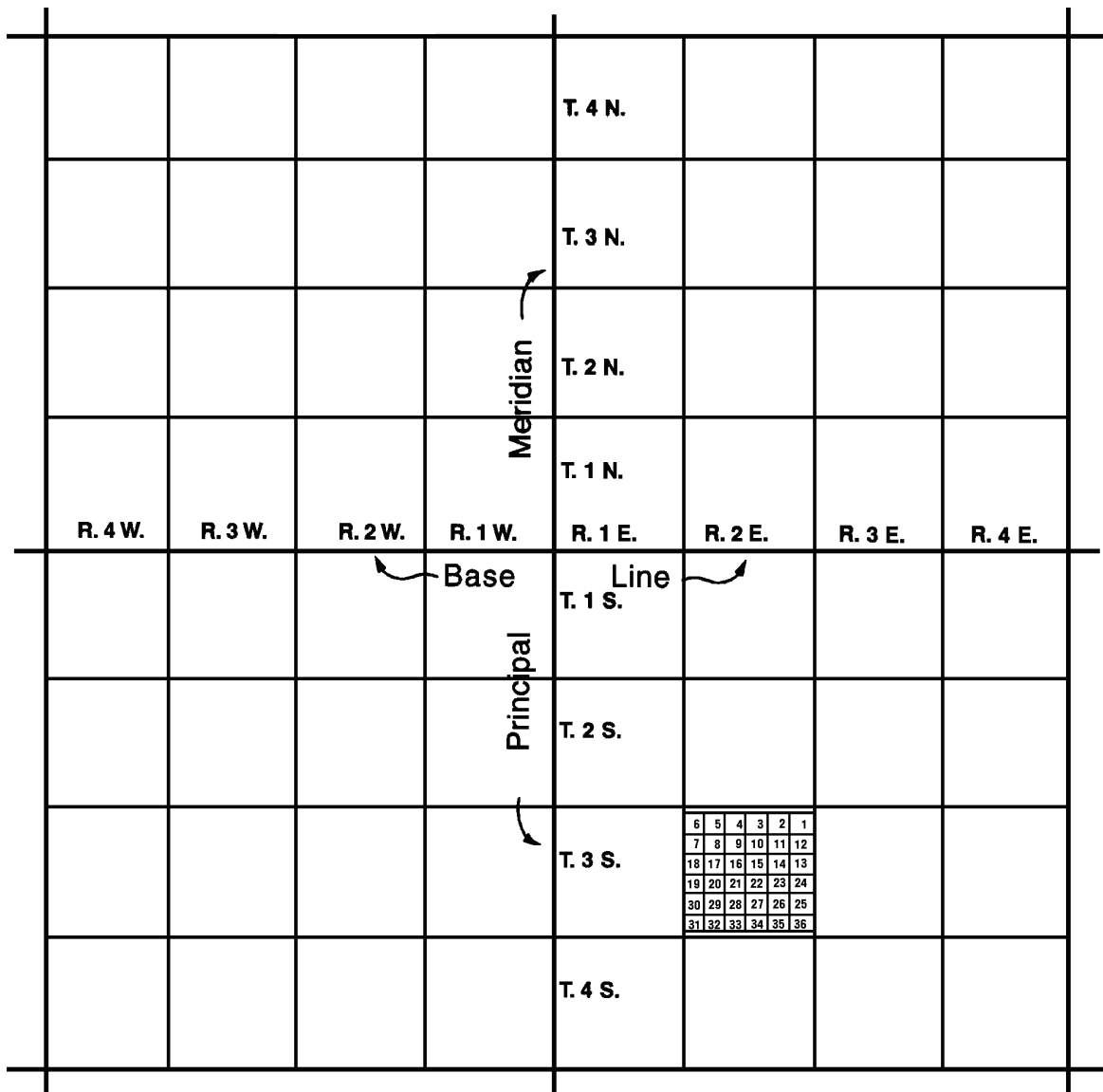


Survey townships run north and south of base lines and are laid out in approximate 6-mile increments. The first tier of townships north or south of a base line is called township 1, the next tier, township 2, *etc.*

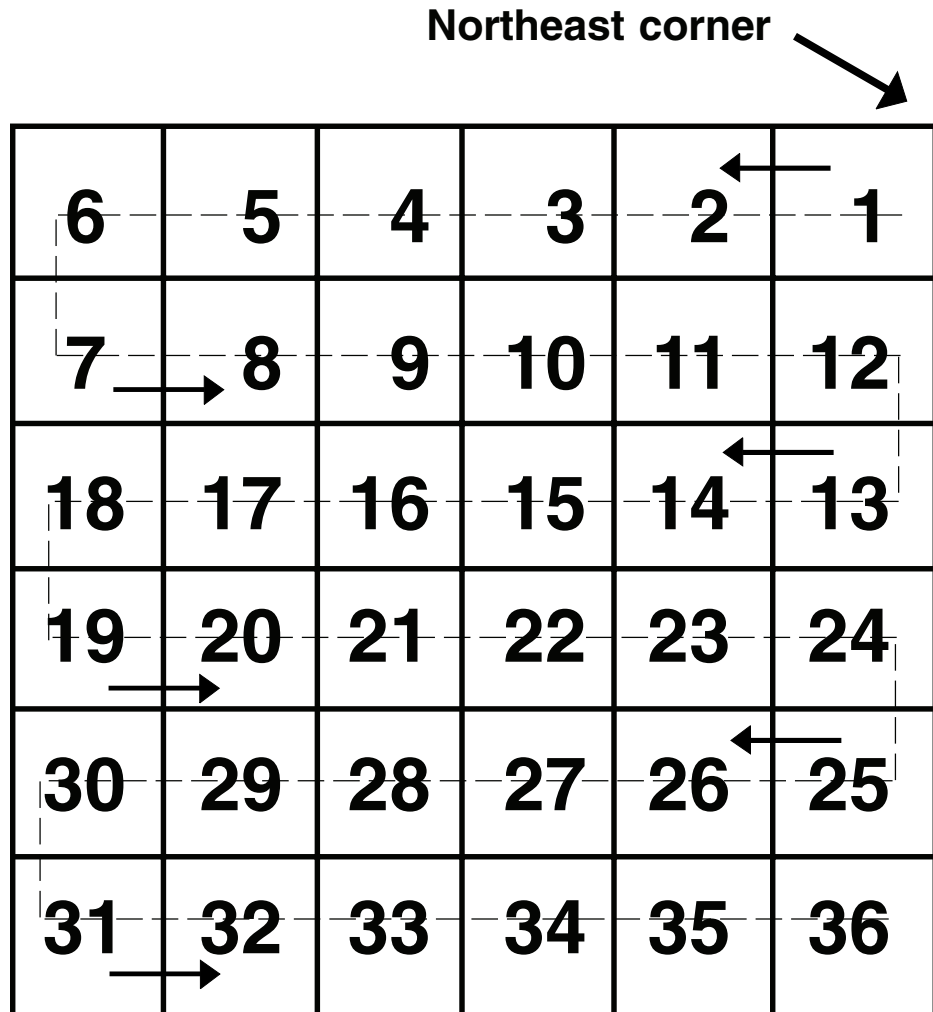
Ranges are laid out in approximate 6-mile increments, east and west of principal meridians. The first tier east or west is called range 1, the next tier, range 2, *etc.*

Survey townships are identified by township and range numbers. For example, a township in the third tier south of the base line and in the second tier east of the 3rd principal meridian, is identified as “township 3 south range 2 east of the 3rd principal meridian.”

Divisions of a section of land



These 6-mile square survey townships are further divided into sections. A **section** is 1-mile square. There are 36 sections per township/range block. Sections are numbered in a serpentine fashion, beginning in the northeast, or upper right corner with section 1, moving left, numbering sections 2, 3, 4, 5, and 6, then dropping down with section 7 directly below section 6, and moving back and forth until all 36 sections are numbered. Section 36 is in the southeast, or lower right corner.



A true section of land contains 640 acres. Sections are often quartered, with the upper right quadrant, or $\frac{1}{4}$, being referred to as the northeast quarter; the upper left quadrant, or $\frac{1}{4}$, being referred to as the northwest quarter; the lower left quadrant, or $\frac{1}{4}$, as the southwest quarter; and the lower right quadrant, or $\frac{1}{4}$, as the southeast quarter. These quarter sections each contain 160 acres.

Quarter sections are often further divided into quarter quarter sections, containing 40 acres each; or quarter quarter quarter sections, containing 10 acres each. Occasionally, they are further divided into quarter quarter quarter quarter sections each containing $2\frac{1}{2}$ acres.

Most tracts containing less than $2\frac{1}{2}$ acres are described using a **metes and bounds** description. Metes and bounds descriptions first describe a beginning point, and then use directions and distances to describe the perimeter of the property. Metes and bounds descriptions should always end back at the point of beginning.

Divisions of a section of land

20 Chains	20 Chains	40 Chains				
W. $\frac{1}{2}$ NW. $\frac{1}{4}$	E. $\frac{1}{2}$ NW. $\frac{1}{4}$	NE. $\frac{1}{4}$				
80 Acres	80 Acres	160 Acres				
1320 Feet	1320 Feet	2640 Feet				
NW. $\frac{1}{4}$ SW. $\frac{1}{4}$	NE. $\frac{1}{4}$ SW. $\frac{1}{4}$	N. $\frac{1}{2}$ NW. $\frac{1}{4}$ SE. $\frac{1}{4}$	W. $\frac{1}{2}$ NE. $\frac{1}{4}$ SE. $\frac{1}{4}$	E. $\frac{1}{2}$ NE. $\frac{1}{4}$ SE. $\frac{1}{4}$		
40 Acres	40 Acres	S. $\frac{1}{2}$ NW. $\frac{1}{4}$ 20 Acres SE. $\frac{1}{4}$	20 Acres	20 Acres		
SW. $\frac{1}{4}$ SW. $\frac{1}{4}$	SE. $\frac{1}{4}$ SW. $\frac{1}{4}$	NW. $\frac{1}{4}$ SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ 10 Acres	NE. $\frac{1}{4}$ SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ 10 Acres	5 Acres	5 Acres	5 Acres
40 Acres	40 Acres	SW. $\frac{1}{4}$ SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ 10 Acres	SE. $\frac{1}{4}$ SW. $\frac{1}{4}$ SE. $\frac{1}{4}$ 10 Acres	2 $\frac{1}{2}$ Acres		660 Ft.
80 Rods	440 Yards					

Legal descriptions fall into three categories — lots and block, land descriptions (which can be described either fractionally, by acreage, or lineally), and metes and bounds. When reading legal descriptions to locate property, read all legal descriptions backwards, except those written in metes and bounds.

Lots and blocks

Lots 1 and 4, in block 30, in the village of Good Hope, McDonough County, Illinois.

Lot 4 in block 28 in the city of Bushnell, according to plat #2 of said city, county of McDonough, state of Illinois.

Lot 6, block 10, Blevins 4th Addition to the city of Macomb, in the county of McDonough, Illinois.

Land descriptions

Fractional: E $\frac{1}{2}$, NE $\frac{1}{4}$, section 6, T.3N, R.4W,
3rd principal meridian.

NW $\frac{1}{4}$, SW $\frac{1}{4}$, NE $\frac{1}{4}$, section 6, T.3N, R.4W,
3rd principal meridian.

W $\frac{1}{2}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$, section 6, T.3N, R.4W,
3rd principal meridian

Acreage: W 80 acres, NE $\frac{1}{4}$, section 6, T.3N, R.4W of
3 P.M.

Lineal: The E 400' of SE $\frac{1}{4}$, sec. 7, T.2S, R.1E of 3 P.M.

Metes and bounds

Beginning at the SE corner of the NW quarter of section 4, T.7N, R.8E of the 3 P.M. Then north 50' to the point of beginning. Then west 550'. Then north 400'. Then east 550'. Then south 400' to the point of beginning.

Exercise 11-1

Legal descriptions

The important thing to remember when doing this exercise is to read all legal descriptions backwards to locate the property, except those written in metes and bounds. All of the examples are located in section 32, township 12 south, range 2 west, of the 3rd principal meridian. All of these examples use the grid sheets that represent one section and contain 640 acres.

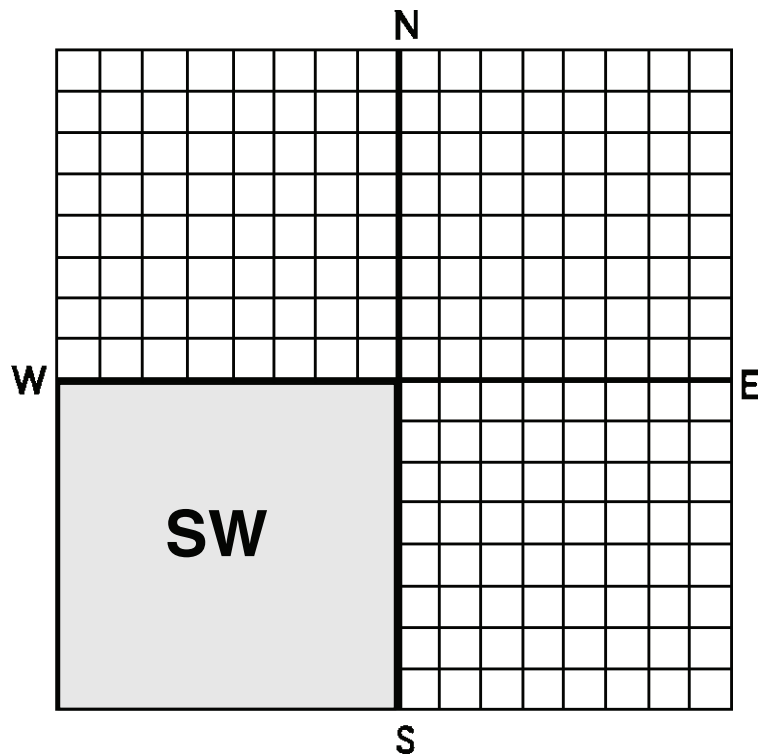
Look at the first legal description and read the description backwards to locate the property.

- A Southeast quarter of the southwest quarter of section 32, township 12 south, range 2 west, of the 3rd principal meridian.

Step 1

Locate the southwest quarter of Section 32. The shaded portion represents the **southwest quarter of section 32 and contains 160 acres.**

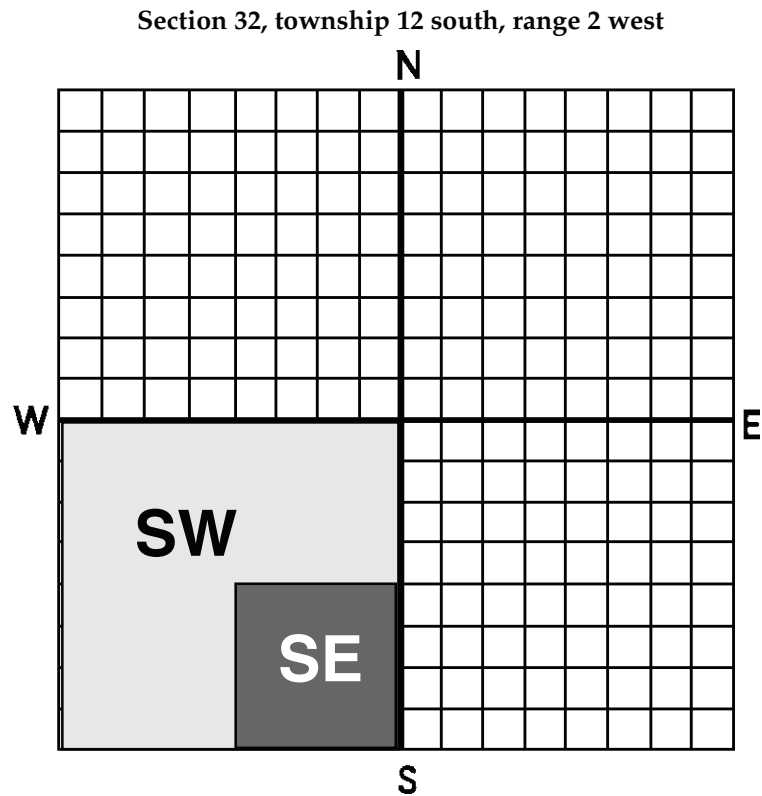
Section 32, township 12 south, range 2 west



Southeast quarter of the southwest quarter of section 32, township 12 south, range 2 west of the 3rd principal meridian.

Step 2

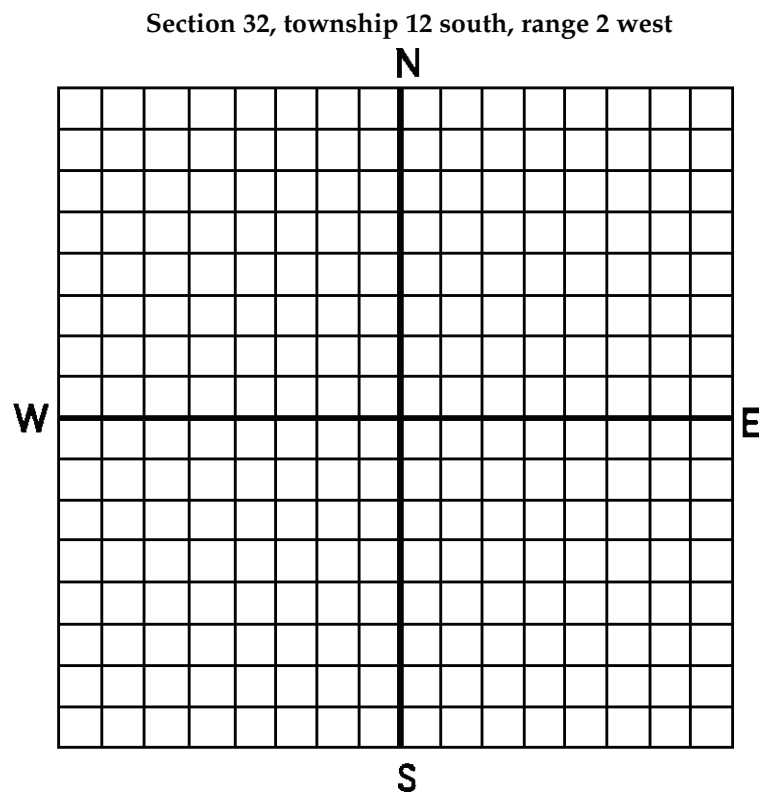
Locate the south-east quarter of the southwest quarter. The darker shaded portion represents the **southeast quarter of the southwest quarter** of Section 32 and contains 40 acres.



Southeast quarter of the southwest quarter of section 32, township 12 south, range 2 west of the 3rd principal meridian.

Complete B through E.

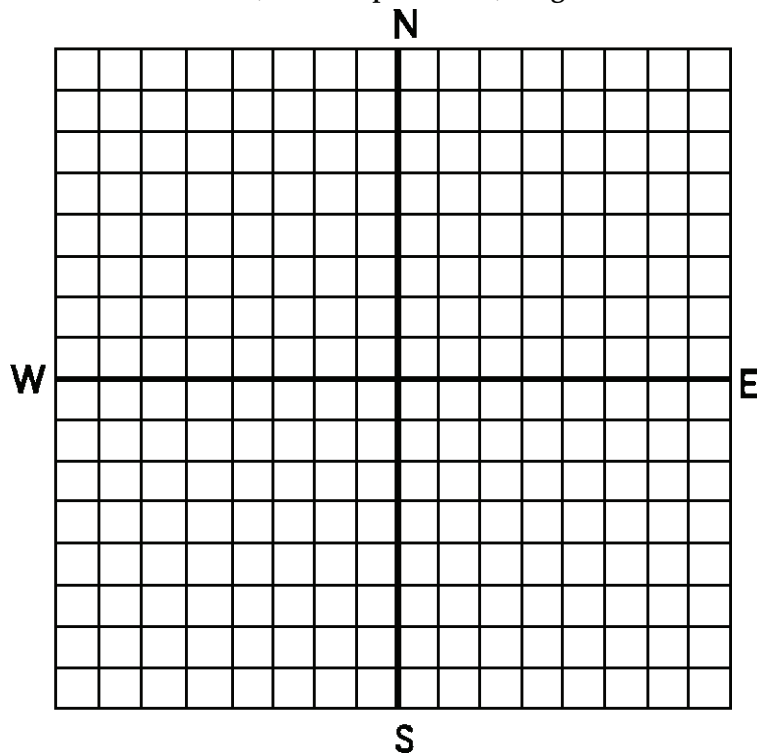
- B** The southwest quarter of the northeast quarter of the northeast quarter.



- C North 10 acres of the northeast quarter of the northeast quarter.*

*Remember, a section contains 640 acres, and a quarter section contains only one-fourth as many acres, or 160 acres, and so forth.

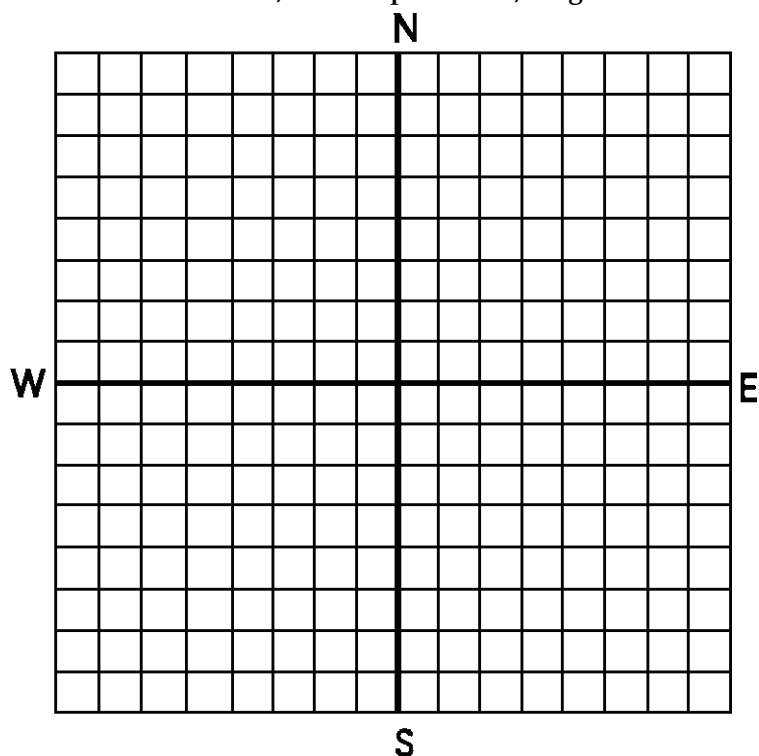
Section 32, township 12 south, range 2 west



- D Beginning in the northwest corner of section 32, township 12 south, range 2 west of the 3rd principal meridian, thence south 330'; thence east 1320'; thence north 330'; thence west 1320' to the point of beginning.*

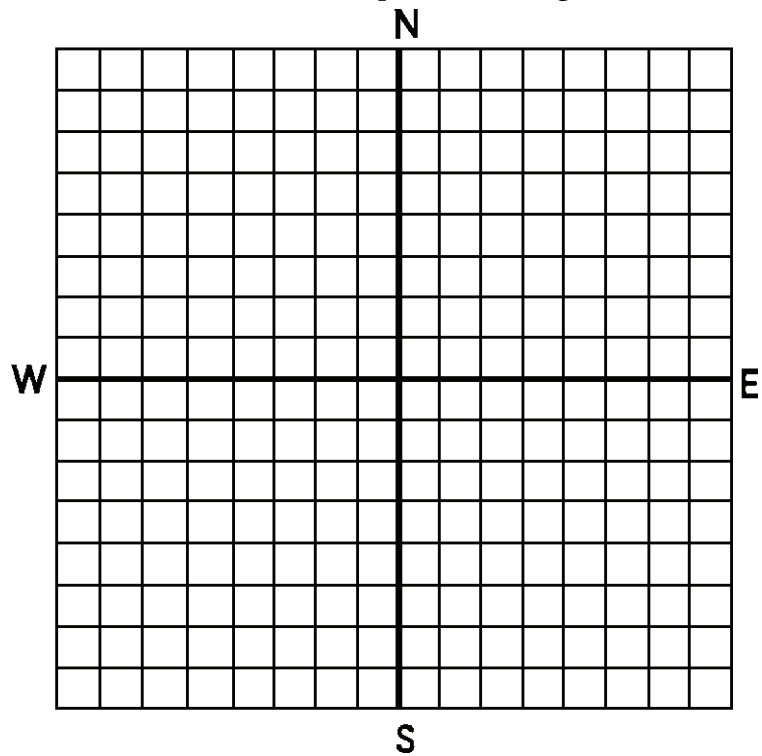
*This is a metes and bounds description. Each square on this grid is a square with sides 330 linear feet each. If you started in the northwest corner of section 32 and walked 330 linear feet south, you would arrive at the very next grid line. The same thing would happen if you started in the northwest corner of section 32 and walked 330 linear feet east.

Section 32, township 12 south, range 2 west



E 2 ½ acres in the southwest corner of the southwest quarter of the southwest quarter of the northeast quarter.

Section 32, township 12 south, range 2 west



Refer to the answer key in the back of this booklet to check your answers.

Property index number

A **property index number**, or **PIN**, is a series of numbers that denote the geographic location and use of a parcel of land.

The first two digits, known as the **area** or **township** number, indicate the survey township in which the parcel is located. The area or survey townships are numbered from left to right in the county.

R. 8 E.	R. 9 E.	R. 10 E.	R. 11 E.	R. 14 W.	
1	2	3	4	5	T. 8 N.
6	7	8	9	10	T. 7 N.
11	12	13	14	15	T. 6 N.
16	17	18	19	20	T. 5 N.

Area number

07	00	000	000	0000
----	----	-----	-----	------

The next two digits in the series represent the **section** number. This number corresponds to the actual geographic section.

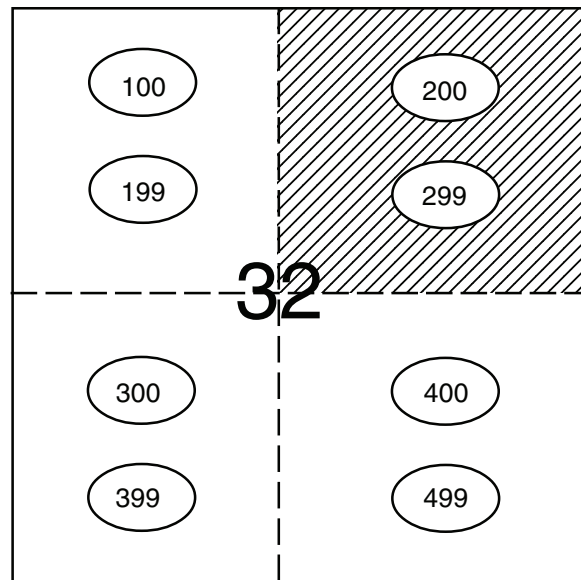
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Section number

07	32	000	000	0000
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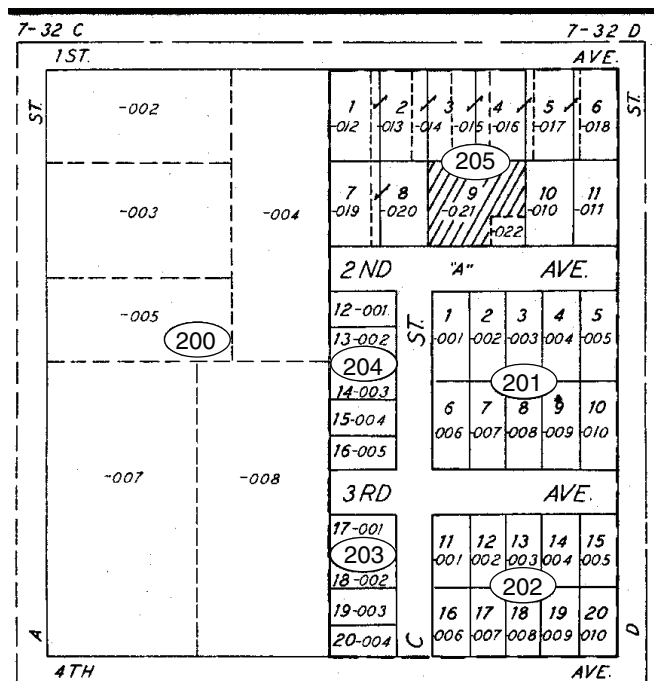
The next three digits correspond to the **block** or quarter section in which the parcel is located.

- 100 — 199 Blocks are in the northwest quarter section.
- 200 — 299 Blocks are in the northeast quarter section.
- 300 — 399 Blocks are in the southwest quarter section.
- 400 — 499 Blocks are in the southeast quarter section.



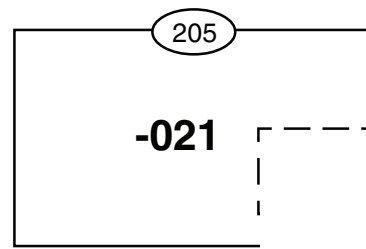
Block number 07 32 205 000 0000

The next three digits of the PIN indicate the **parcel** or particular legal description within the quarter section.



Parcel number 07 32 205 021 0000

The last four digits in the PIN are known as the unit numbers and indicate the **use** of the property.



Unit number

07	32	205	021	0040
----	----	-----	-----	------

The unit number can denote special taxable interests used in conjunction with mineral rights, and can be used to depict the property class.

Examples include:

7000	=	Mineral rights
7400	=	Sand-gravel
0040	=	Residential with dwelling
0060	=	Commercial business
0080	=	Industrial

PINs are considered legal descriptions under the Property Tax Code, and every time the legal description of a parcel changes, a new PIN must be assigned.

Summary

The **Rectangular Survey System** is comprised of townships, ranges, and sections.

Townships are numbered from left to right, and sections are numbered in a serpentine fashion.

A **Property Index Number**, or **PIN**, is a series of 14 numbers that denotes the geographic location and use of a parcel of land. The first two digits denote the **area** number, the second two digits denote the **section** number, the next three digits denote the **block** number, the next three digits denote the **parcel** number, and the last four digits denote the **unit** number.

Unit 11

Review questions

Match these terms to the correct definition.

- | | |
|----------------------------|--|
| ___ Section | A abbreviated legal description consisting of the area, section, block, parcel, and unit numbers. |
| ___ Base line | B 6 mile X 6 mile square block of land numbered from left to right. |
| ___ 3rd Principal Meridian | C a legal description that describes the perimeter of a property. |
| ___ Township | D a 14-digit number denoting geographic location and use. |
| ___ Metes and bounds | E a township has 36 of these and they are numbered in a serpentine fashion. |
| ___ PIN | F line of latitude running east and west through the state of Illinois. |
| ___ PIN | G line of longitude running north and south through the state of Illinois. |

Unit 12

Ethics and Resources

This unit covers ethics and resources for assessors.

The purpose of this unit is to discuss the importance of conducting business in an ethical manner and provide resources assessors can turn to for assistance.

Learning objectives

After completing the assigned readings, you should be able to

- understand the importance of ethical behavior, and
- have a better understanding of where to seek assistance.

Ethics

Ethics is an important issue in government. As an assessor, you may be governed by a code of ethics that has been adopted by either the governing body in your assessment jurisdiction or by a professional organization with which you are affiliated. It is to your advantage to obtain a copy of the ethics code from your CCAO, township board, or the assessment organization with which you are affiliated.

The Ethics Committee drafted a proposed Code of Ethics and Standards of Professional Assessment Practices for Illinois. This proposed draft has been submitted for approval to the state “Core Group” of the Project on Education and Professionalism for Assessors. Included in the draft are four canons, as well as eleven standards.

This draft is included as an example only. Assessors should contact their county officials for a copy of the ethics code adopted for their jurisdictions.

Proposed Code of Ethics and Standards of Professional Assessment Practice for Illinois

An assessing official, as used within this code, is any person, elected, appointed, or employed by any unit of state or local government whose duties include any aspect of the assessment of real property for ad valorem taxation purposes.

Canon 1

An assessing official shall conduct himself or herself in a manner that promotes professionalism in the assessment process.

Canon 2

An assessing official must follow the Illinois state statutes and cooperate with all other public officials in carrying out his or her responsibilities to the assessment profession and the public.

Canon 3

In the assessment of any property, an assessing official must develop each analysis and opinion without bias and without intent to benefit his or her own self or another individual.

Canon 4

An assessing official must comply with these Standards of Professional Assessment Practice for Illinois.

Standards of Professional Assessment Practice

Standard 1

An assessing official must conform in all respects to these Canons of Ethics and Standards of Professional Assessment Practice, as they may be amended from time to time, and give full faith and allegiance to such oaths of office as the official may take. The official shall obey and apply equitably all applicable laws and regulations as may be required in the pursuance of his or her duties.

Standard 2

In developing a real property assessment and/or appraisal, an assessing official must be aware of, understand, and correctly employ those recognized methods and techniques that are necessary to produce a credible assessment and/or appraisal. The officer shall seek guidance from other assessment or appraisal professionals as necessary to meet this standard.

Standard 3

In developing a mass appraisal, an assessing official must be aware of, understand, and correctly employ those recognized methods and techniques that are necessary to produce credible assessments. The officer shall seek guidance from other assessment or appraisal professionals as necessary to meet this standard.

Standard 4

In estimating values for assessment purposes, an assessing official must estimate “market value” as that concept is defined by the courts of Illinois, regardless of the assessment percentage to be used, except when the law requires special valuation techniques.

Standard 5

An assessing official must conduct all official activities in a manner that will reflect credit on the assessment profession. The official must cooperate fully with other public officials in all matters affecting equity and the efficiency of the property tax system.

Standard 6

An assessing official must make available for public review all public records in his or her custody unless access to such records is specifically limited or prohibited by law, or the information has been obtained on a confidential basis and the law permits such information to be treated confidentially. The official must make every effort to inform the public about their rights and responsibilities under the law and the property tax system.

Standard 7

An assessing official must avoid the appearance of impropriety and must uphold the professional reputation of other assessing officials.

Standard 8

An assessing official must use no professional designation unless duly authorized to do so, and must claim no qualifications in any report, testimony or elsewhere, that are not factual or that may be subject to erroneous interpretation.

Standard 9

An assessing official must accept no fee appraisal or other assignment in which the official has an unrevealed personal interest or bias, or which cannot be completed without placing the official's personal integrity or that of the assessment profession in jeopardy. The official may accept no fee appraisal or other assignment that could foreseeably conflict with any assessment jurisdiction or responsibility the official may have.

Standard 10

An assessing official must not accept any assessment or appraisal engagement for which the amount of the official's compensation is contingent upon reporting a predetermined value; or on the amount of the value estimate; or on reporting a predetermined opinion, conclusion, or recommendation; or on the amount of a tax reduction obtained by a client using the official's services; or on any other result, value, or subsequent transaction that might impair or give the appearance of impairing the official's objectivity and professionalism.

Standard 11

An assessing official must not only uphold this Code of Ethics and Standards of Professional Assessment Practice by example, but must also encourage, by counsel and advice, adherence to this code and standards by others in the profession.

Note: Canons 1 through 4 and Standards 2 and 3 were adapted from those promulgated by the Appraisal Institute. Standards 1, and 4 through 10 were adapted from those promulgated by the International Association of Assessing Officers.

Where to go for help

When individuals are just starting out in the assessment field, they may often feel overwhelmed by their duties.

In addition to the Property Tax Code and the Illinois Real Property Appraisal Manual, there are many other resources available to the assessor.

It is often helpful to talk with other assessors in your area for information on handling troublesome situations. The CCAO for your county can be very helpful regarding how you can better perform work-related responsibilities. Also, there are numerous assessment classes available from professional appraisal/assessment organizations to give you the tools to better perform your job, and the department is available to provide technical assistance in many areas.

When the question is of a legal nature, such as interpreting the statutes, you should check with your state's attorney, who is charged with enforcing the statutes in your county.

Summary

As an assessor, you should conduct yourself in an ethical manner at all times. Remember that you are not alone in tackling your job. There are numerous sources of assistance available to you.

Unit 12

Review questions

- 1 List four resources available to assessors for assistance.

- 2 Do township assessors operate under a code of ethics?

Answer key

Township Assessor — Introductory Course

Answer Key for Exercises 1 and 2

Exercise 1 — Converting decimals to percents and percents to decimals

	Decimal	Percent	\$/ \$100 AV
1	<u>.1200</u>	12	<u>\$12/\$100</u>
2	<u>.0175</u>	1.75	<u>\$1.75/\$100</u>
3	.0325	<u>3.25</u>	<u>\$3.25/\$100</u>
4	.0004	<u>.04</u>	<u>\$.04/\$100</u>
5	<u>.0255</u>	<u>2.55</u>	\$2.55/\$100
6	<u>.0006</u>	.06	<u>\$.06/\$100</u>
7	.1234	<u>12.34</u>	<u>\$12.34/\$100</u>
8	<u>.00033</u>	<u>.033</u>	\$.033/\$100
9	.0225	<u>2.25</u>	<u>\$2.25/\$100</u>
10	<u>.0045</u>	.450	<u>\$.45/\$100</u>

Exercise 2 — Land values

	Site shape	Measurements	Square footage	Approx. acreage
1	Rectangular	400' x 800'	<u>320,000</u>	<u>7.3 (7.34)</u>
2	Rectangular	320' x 480'	<u>153,600</u>	<u>3.5 (3.52)</u>
3	Triangular	320' x 480'	<u>76,800</u>	<u>1.8 (1.76)</u>
4	Triangular	150' x 180'	<u>13,500</u>	<u>.3 (.30)</u>
5	Square	150' x 150'	<u>22,500</u>	<u>.5 (.51)</u>
6	Triangular	600' x 900'	<u>270,000</u>	<u>6.2 (6.19)</u>

Answer Key for Exercises 3 and 4

Exercise 3 — Tax rates

	L	A	R
1	\$660,000	\$30,000,000	<u>2.2000% (.022000)</u>
2	<u>\$400,000</u>	\$10,000,000	4.0000%
3	\$55,000	<u>\$8,000,000</u>	.6875%
4	<u>\$2,254,760</u>	\$95,480,000	2.3615%
5	\$200,000	\$50,000,000	<u>.4000% (.004000)</u>
6	\$90,000	<u>\$12,000,000</u>	.7500%
7	\$44,600	\$54,257,900	<u>.0822% (.000822)</u>
8	\$150,000	<u>\$42,253,521</u>	.3550%
9	<u>\$83,436</u>	\$12,750,000	.6544%

Exercise 4 — Tax bills

Determine the tax bill on a residential property with a market value of \$96,750 and an EAV of \$32,250. The property is situated in six taxing districts. Compute the tax rate for each taxing district and then determine the amount of tax (taxable EAV x rate).

	District	Levy	Taxable EAV	Rate	Tax
1	School	\$996,173	\$31,425,000	<u>3.1700</u> %	<u>\$1,022.33</u>
2	County	\$473,630	\$94,726,000	<u>.5000</u> %	<u>\$ 161.25</u>
3	Township	\$178,994	\$25,482,000	<u>.7024</u> %	<u>\$ 226.52</u>
4	City	\$144,661	\$15,272,000	<u>.9472</u> %	<u>\$ 305.47</u>
5	Fire	\$110,707	\$37,846,000	<u>.2925</u> %	<u>\$ 94.33</u>
6	Library	\$76,360	\$15,272,000	<u>.5000</u> %	<u>\$ 161.25</u>

Aggregate tax rate = **6.1121** % x taxable EAV \$ **32,250** =

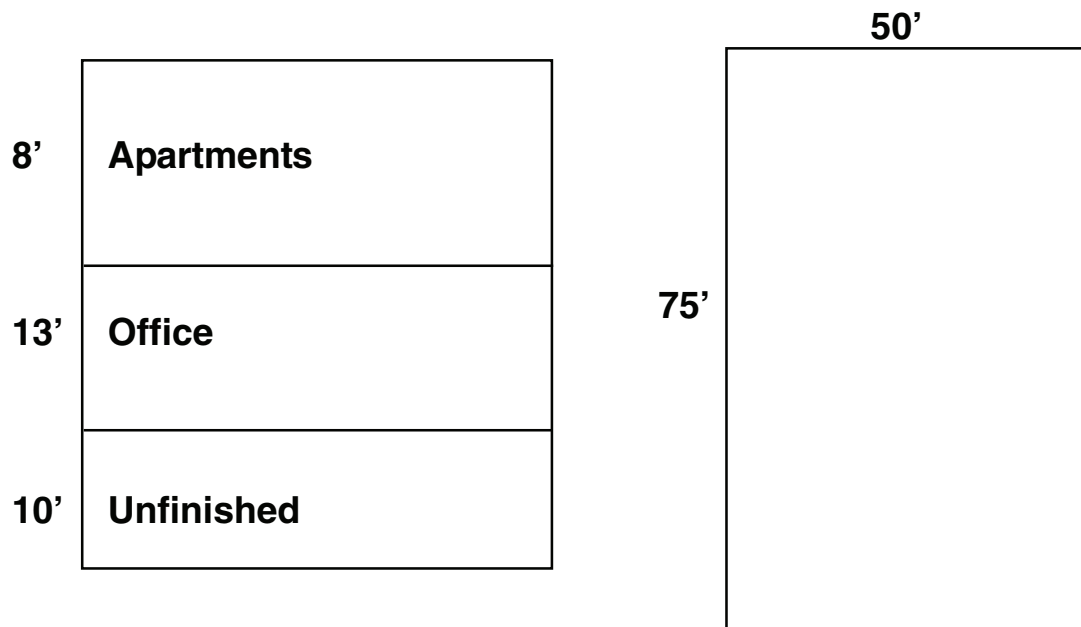
Tax bill \$ **1,971.15** **1,971.14***

***The amount of the tax bill is rounded to the nearest even number for two equal installment amounts.**

Answer Key for Exercise 5

Complete the remaining three columns.

	2 Story L36 W40 H28	2 Story L48 W50 H28	2 Story L44 W50 H28	3 Story L72 W48 H42
S/F ground area (SFGA)	1,440'	2,400	2,200	3,456
Eff. perim L/F (EP)	152'	196'	188'	240'
C/F of bldg. (CF)	40,320	67,200	61,600	145,152
S/F wall area (SFWA)	4,256	5,488	5,264	10,080
Wall ratio (WR)	9.47	12.24	11.70	14.40



Data Bank

	3750 ¢
	250'
	116,250 CF
	7,750 ¢
	15

Compute the following items in the data bank for this 2-story commercial building with a full basement.

- 1 Compute the EP if one of the 75' walls is a party wall.
220'
- 2 Compute the EP if both of the 75' walls are party walls.
190'

Unit 1

Review questions

- 1 Define *ad valorem* tax.
A tax that is based on the value of the property owned.
It is assessed according to its value.

- 2 ***Property tax*** is the major source of tax revenue for local governments.
- 3 What are the two classifications of property?
 - 1 ***Real***
 - 2 ***Personal***
- 4 The largest share of property tax goes to ***schools***.
- 5 List the three approaches to value.
 - 1 ***Sales comparison or market approach***
 - 2 ***Cost approach***
 - 3 ***Income approach***
- 6 What four steps are involved in the assessment of any property?
 - 1 ***Identifying the real property***
 - 2 ***Listing it***
 - 3 ***Appraising it***
 - 4 ***Placing a value on the tax rolls***
- 7 What two types of properties are assessed by the state?
 - 1 ***Railroad operating property***
 - 2 ***Pollution control facilities***

Unit 1

Review questions (cont.)

- 8 What happens if an individual does not pay his taxes?

The county treasurer prepares a delinquent tax list and publishes in a newspaper. If unpaid, the courts order a lien for unpaid taxes, penalty, and fees to be sold at a tax sale.

- 9 Who has the statutory authority to review assessments made by the township assessor and make changes when deemed necessary?

1 **Chief county assessment officer (CCAO)**

2 **Board of review**

- 10 List, in order, the offices that actually handle the assessment books, from the time they are created until the taxes are extended.

1 **County clerk**

2 **Chief county assessment officer (CCAO)**

3 **Township assessor**

4 **Chief county assessment officer (CCAO)**

5 **Board of review**

6 **County clerk**

- 11 Property is valued as to its condition on **January 1** , the assessment date.

- 12 The **board of review** makes the final decision on property values at the county level.

Exercise 2-1

Using the Property Tax Code

Use the Property Tax Code to answer the following questions and cite the correct section.

- 1 What is the education requirement for the assessor in a township or multi-township with a non-farm, non-mineral equalized assessed valuation of less than \$10 million and less than \$1 million commercial and industrial valuation?

Introductory course Section **2-45**

- 2 Are assessing officials required to take an oath of office?

Yes Section **4-30**

- 3 Must a supervisor of assessments hold an annual meeting for his or her township and multi-township assessors?

Yes Section **9-15**

- 4 Are individuals permitted to obtain copies of property record cards?

Yes Section **9-20**

- 5 Are township assessors required to provide the supervisor of assessments with a copy of all new property record cards as they are added to the tax rolls?

Yes Section **9-25**

- 6 Must the supervisor of assessments provide “rules” for the assessment of property by township assessors?

Yes Section **9-5**

- 7 Is there a provision in the statutes for the revisions of assessment in counties of less than 3 million?

Yes Section **9-75**

Exercise 2-1 (cont.)

- 8 What is the date specified by statute for the return of the assessment books by the township assessor to the supervisor of assessments?

April 15 Section **9-230**

- 9 May township assessors appoint deputies to assist them with their duties?

Yes Section **2-65**

- 10 Is there a provision in the statutes for setting the salary of an assessor?

Yes Section **2-70**

- 11 Can township assessors be reimbursed for their education expenses?

Yes Section **2-80**

- 12 Are there any penalties for assessors who knowingly fail to perform their duties?

Yes Section **25-15, 25-20, & 25-25**

- 13 Who is responsible for prosecuting violators of the Property Tax Code?

States attorney Section **25-45**

- 14 How are vacancies in the office of township assessor filled?

Either by appointment or contractual agreement with a person qualified under Section 2-45. Section **2-60**

- 15 What is the statutory level of assessment?

33 1/3 % Section **9-145**

- 16 Can candidates “get qualified” after they are elected or appointed, as long as they are qualified when they take their oath?

No Section **2-45**

Unit 2

Review questions

- 1 Section **2-45** outlines the pre-election and pre-appointment requirements for township and multi-township assessors.
- 2 Section **2-52** provides for the revision of assessor qualifications.
- 3 The revised CIAO criteria requires an individual to complete **3** core courses and **2** of **6** electives.
- 4 Individuals in jurisdictions with more than **\$25 million** in non-farm/non-mineral EAV or more than **\$1 million** in commercial/industrial EAV, are required to have a CIAO designation before running for office or being appointed to office.
- 5 Individuals in jurisdictions with more than \$10 million and less than \$25 million of non-farm/non-mineral EAV and less than \$1 million of commercial/industrial EAV who have previously held office will be required to have an approved **designation** prior to running for office.

Unit 3

(Page 3-6)

	Comparable 1 1306 Archer	Comparable 2 814 Adams	Comparable 3 1414 State	Comparable 4 6607 Healey	Comparable 5 1209 Monroe
Address					
No. of months since sale	5 2.5% +1,350	4 2% +1,260	3 1.5% +1,043	5 2.5% +1,570	12 6% +3,582
Foundation	Basement -2,500	Crawl —	Basement -2,500	Basement -2,500	Slab +1,000
No. of plumbing fixtures	5 —	7 -1,000	8 -1,500	7 -1,000	5 —
No. of bedrooms	3 +1,500	4 —	4 —	3 +1,500	3 +1,500
Garage	2 3% -1,620	1 —	2 3% -2,085	1 —	1 —
Central air conditioning	No +1,080	Yes —	Yes —	No 2% +1,256	Yes —
No. of fireplaces	1 —	0 +1,200	2 -1,200	1 —	0 +1,200
Landscaping adjustment	+ 5% +2,700	No adj. —	No adj. —	No adj. —	- 5% -2,985
Location adjustment	+ 2% +1,080	No adj. —	- 3% -2,085	+ 4% +2,512	No adj. —
Lot size adjustment	+ 6% +3,240	No adj. —	+ 2% +1,390	No adj. —	No adj. —
Sale price	\$54,000	\$63,000	\$69,500	\$62,800	\$59,700
Net adjustment	+6,830	+1,460	-6,937	+3,338	+4,297
No. of adjustments	8	3	7	6	5
Adjusted sale price	\$60,830	64,460	62,563	66,138	63,997

(Page 3-10)

	Adj. sales price	No. of adj.
Comparable 1	<u>\$ 60,830</u>	<u>8</u>
Comparable 2	<u>\$ 64,460</u>	<u>3</u>
Comparable 3	<u>\$ 62,563</u>	<u>7</u>
Comparable 4	<u>\$ 66,138</u>	<u>6</u>
Comparable 5	<u>\$ 63,997</u>	<u>5</u>

Looking at the least number of adjustments, which sale is most comparable to the subject property?

Comparable 2

Unit 3

Review Questions

- 1 ☒ T or ☐ F When using the sales comparison, or market approach, one never adjusts the subject.
- 2 ☐ T or ☒ F Make a minus adjustment to your comparable if it is inferior to your subject.
- 3 ☐ T or ☒ F If the market is showing an annual increase of 3 percent, a sale occurring 2 years ago would have a minus adjustment of 6 percent.
- 4 ☒ T or ☐ F Three to five sales are recommended when using the sales comparison, or market approach, to value property.
- 5 ☒ T or ☐ F The property most comparable to the subject is the comparable with the least number of adjustments.

Exercise 4-1

IRV Formulas

Using the IRV formula, complete the following questions.

- 1 A parking lot recently sold for \$300,000. The parking lot has 100 parking spaces, each renting for \$25 per month. Allowable expenses are \$6,000 annually. What is the capitalization rate?

$$\frac{.0800 \text{ or } 8\%}{R = \frac{I}{V} \frac{24,000}{300,000} \quad 100 \times 25 \times 12 = \frac{30,000}{- 6,000} \quad NI \quad 24,000}$$

- 2 A parking lot provides its owner with a net annual income of \$27,400. The appropriate capitalization rate is 9.35%. What is the value of this parking lot?

$$\frac{\$293,048}{V} = \frac{I}{R} \frac{27,400}{.0935} = 293,048$$

- 3 The capitalization rate for an office building is 11.3%. This building recently sold for \$452,600. What is the net annual income?

\$51,144 **$I = R \times V$** **$452,600 \times .113$**

- 4 An apartment building recently sold for \$375,700. The net annual income for this building \$53,428. What is the capitalization rate?

$$\frac{.1422 \text{ or } 14.22\%}{R = \frac{I}{V}} = \frac{53,428}{375,700}$$

- 5 An apartment building has 20 units that rent for \$350 per month. The allowable expenses are \$25 per unit, per month. The capitalization rate is 12.54%. What is the value of this building?

$$\begin{array}{rcl}
 \$622,010 & V = \frac{I}{R} & \frac{78,000}{.1254} \quad 350 \quad 325 \times 12 \times 20 = \$78,000 \\
 & & - \underline{25} \\
 & & 325/\text{mo}/\text{apt}
 \end{array}$$

- 6 A gravel parking lot recently sold for \$267,900. The discount rate is 9.25%, the recapture rate is 2.54%, and the effective tax rate is 2.00%. What is the parking lot's net annual income?

\$30,139 **$I = R \times V$** **$267,900 \times 11.25\%$**

Unit 4

Review questions

- 1 What is the formula for the income approach?

$$\frac{I}{R \times V}$$

- 2 A 100 space gravel parking lot rents for \$30 a month per space. The effective tax rate is 2.54%, the discount rate is 9.35%, and the recapture rate is 3.00%. What is the value of the parking lot?

$$\frac{100 \times 30 \times 12 = 36,000}{11.89\%} = \$302,775$$

- 3 A 2-story commercial building has a value of \$960,000. The building provides its owner with a monthly net income of \$6,000 per floor. This is well in line with similar properties. What is the building capitalization rate?

$$\frac{6,000 \times 2 = 12,000 \times 12 = \$144,000}{960,000} = 15\%$$

- 4 Land used as a gravel parking lot recently sold for \$270,000. The recapture rate is 3.25%, the discount rate is 8.15%, and the effective tax rate is 2.50%. What is the net income of this parking lot?

$$10.65\% \times \$270,000 = \$28,755$$

- 5 A 12 unit apartment building has (6) 1 bedroom units, (4) 2 bedroom units, and (2) 3 bedroom units. The 3 bedroom units rent for \$400 a month, the 2 bedroom units rent for \$350 a month, and the 1 bedroom units rent for \$275 a month. Similar properties in the area have recorded their monthly income to be at \$3500 a month. What is the potential gross income of this 12 unit apartment building?

$$\$3,500 \times 12 = \$42,000$$

Unit 4

Review questions (cont.)

Match these terms to the correct definition. Some terms may require more than one definition.

- | | |
|--|--|
| <u>F</u> Potential gross income | A Recapture rate |
| D and G <u>Land capitalization rate</u> | B Mortgage interest |
| B or E <u>Unallowable expenses</u> | C certain amount set aside over a period of time for wear and tear items to be replaced |
| A, D, and G <u>Building capitalization rate</u> | D Effective tax rate |
| <u>C</u> Reserve for replacements | E Real estate taxes |
| | F Based on 100 percent occupancy using economic rent versus contract rent |
| | G Discount rate |

Exercise 5-1 worksheet

Cost factor study

Sale Number	Age	Sale Price	Lot Value	Building Residual	Manual Value	Cost Factor
1	N	\$104,000	\$17,000	\$87,000	\$82,300	1.06
2	N	97,700	17,000	<u>80,700</u>	78,400	<u>1.03</u>
3	N	67,800	10,500	57,300	54,500	1.05
4	N	62,900	8,000	<u>54,900</u>	51,800	<u>1.06</u>
5	N	85,600	15,500	70,100	63,700	1.10
6	N	89,200	16,000	<u>73,200</u>	63,100	<u>1.16</u>
7	N	80,300	16,000	64,300	61,200	1.05
8	N	88,300	16,500	<u>71,800</u>	69,000	<u>1.04</u>
9	30	53,500	8,000	45,500	47,900	.95
10	N	93,100	16,500	<u>76,600</u>	72,100	<u>1.06</u>
11	N	76,700	15,500	61,200	58,300	1.05
12	N	86,500	16,000	<u>70,500</u>	66,500	<u>1.06</u>
13	44	67,900	11,000	56,900	59,300	.96
14	N	92,700	16,000	<u>76,700</u>	69,500	<u>1.10</u>
15	12	72,400	11,000	61,400	60,200	1.02

Rank

1	<u>1.03</u>
2	<u>1.04</u>
3	<u>1.05</u>
4	<u>1.05</u>
5	<u>1.05</u>
6	<u>1.06</u>
7	<u>1.06</u>
8	<u>1.06</u>
9	<u>1.06</u>
10	<u>1.10</u>
11	<u>1.10</u>
12	<u>1.16</u>
13	_____
14	_____
15	_____

}

$$1.06 + 1.06 = 2.12$$

$$2.12 \div 2 = 1.06$$

$$\text{Median} = 1.06$$

Note: Sales 9, 13, and 15 are not used because the properties are over one year in age.

Unit 5

Review questions

- 1 What are the three types of depreciation? Place a ✓ next to the one that is generally incurable.

_____	<i>Physical</i>
_____	<i>Functional</i>
<i>✓</i>	<i>Economic</i>

- 2 What is the purpose of a cost factor?

To adjust the IRPAM's values to the local labor and material rates.

- 3 What is a mass appraisal system?

The valuation of many properties as of January 1 of the assesment year, using standard procedures that provide uniformity.

Building Record — Residential — Rural (Property — Type 1)

A-17

A-19

Answer key

Exercise 6-3 — PRC-2 for 03-33-333-009-0040

Building Record — Residential — Rural (Property — Type 1)									
Occupancy 1 Vacant Lot 2 <u>2</u> Dwelling 3 Other 4 Mobile Home 5 Frame Home 6 Summer Home 7 Apt.			Interior Finish B 1 2 3 Plaster/dry wall <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Paneling <input type="checkbox"/>			Remodeled NH Sold Date Amount \$ Memo		Age 56 CDU Good Grade C Dwelling Computations 1 1/2 Sty. FRM Constr. 1,350 Sty. Constr. SF 1,350 SF 116,650	
Living Accommodations Total rooms 6 Bedrooms 3 Family room 0			Foundation 8 "Msv. Wall Basement 1 Full 3 Crawl 4 Slab Area without bsmt. SF			Condo. Comm. Porch 120 SF OFF ¹ EMP ³ EMP ⁴ 2-Sty. ⁵ Porched SF OFF ¹ EMP ³ EMP ⁴ 2-Sty. ⁵ With: SF OFF ¹ EMP ³ EMP ⁴ 2-Sty. ⁵ Wd. deck SF Wood deck ⁶		Basements Heating Central at Sched. comb. Plumbing 5 + 7,325 Attic	
Heating 1 None 2 Central 3 Air condition 4 Other Warm air Hot water/Steam Floor furnace Unit heaters Other			Plumbing Standard (5) Bathroom (3) Half bath (2) Sink/Lavatory water closet Attic 1 None 2 Unfinished 3 Part 4 Full % finished			Porches 120 <u>1</u> EFP + 4,700 Attch./Integral garage + - 3,700 Total 135,325 Grade C 1,00 Total 135,325 Other features Pt. msv. walls Fireplace Finished basement C + 4,120 Total 139,445 C/D 1.06 MH x AP		Replacement cost new 147,812 Eff. age 31 REL 78% Depr. 22% S C M I Full Value 115,293	
Exterior walls Wood/stucco/aluminum/vinyl siding Concrete block Brick/stone Other			Roof Shingle - asphalt/asbestos/wood Slate/tile Composition Other			Summary of Other Buildings Type No. Construction Size Rate Grade Age CDU Factor Garage (detached) Frm ¹ Msv. ² Carport ³		Full Value	
Floors Concrete Wood Tile Carpet			Drive 1 Asphalt 300 <u>1</u> 2.05 1.00 56 Good 1.06 509 Walk 1 Concrete 80 <u>1</u> 3.10 1.00 56 Good 1.06 205 Listed by: Date:			Total full value other buildings 714 Total full value all buildings 116,007		509 205 714 116,007	

Exercise 6-4 - Example of an examination PRC-2

Building Record — Residential — Rural (Property — Type 1)																										
Occupancy			Interior Finish			Remodeled		Sold Date		Mo.		Day		Yr.		Age		5		Adj. Age						
1 Vacant Lot			B 1 2 3			NH		Amount \$										CDU		Avg.						
Living Accommodations			Plaster/dry wall			Fiberboard		Paneling		Memo								Grade		B						
Total rooms			Bedrooms			Family room			1			Sty.			BRK			onstr.			2,150			SF		
7			3			1																				
Foundation			8 Msv. Wall			Pier																				
Basement			3			4			Slab																	
1 Full			Crawl			Basement			Basement			2,150 SF			128,900											
Area without bsmt.			400			SF			Basement			400 SF			- 5,900											
Heating			1 None			2 Central			3 Air condition			4 Other														
Warm air																										
Hot water/Steam																										
Floor furnace																										
Unit heaters																										
Other																										
Plumbing			Standard (5)																							
Bathroom (3)																										
Half bath (2)																										
Sink/Lavatory water closet																										
Attic			1 None			2 Unfinished			3 Part			4 Full														
% finished																										
Exterior walls			Wood/stucco/aluminum/vinyl siding																							
Concrete block																										
Brick/stone																										
Other																										
Roof			Shingle - asphalt			Wood																				
Slate/tile																										
Composition																										
Other																										
Floors			B 1 2 3																							
Concrete																										
Wood																										
Tile																										
Carpet																										
Listed by:																										
Date:																										
Total full value other buildings																										
Total full value all buildings																										

Summary of Other Buildings

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Factor	Repl. cost new	REL	Full Value
Garage (detached)		Frm ¹ Msy ² Carpet ³									
Drive	1	Concrete	800	3.10	1.22	5	Avg.	1.06	3,207	96	3,079
<p>Summary of Other Buildings</p> <p>1,750 + 400 = 2,150</p> <p>1,750 + 400 = 2,150</p>											

Unit 6

Review questions

- 1 What type of quality does the quality grade factor “D” represent and what is the factor applied from the schedules?

Cheap quality 82% or .82

- 2 A local assessor notices that an improvement has been greatly neglected and its physical condition is extremely poor. He or she notes that this particular improvement was originally built with excellent materials and workmanship. Which one of the following will the assessor adjust?

☐ Cost

☐ Quality grade

☒ CDU rating used to determine the REL factor

- 3 Quality grade refers to the

Quality of materials and workmanship.

- 4 T or ☒ F You need to make an adjustment if an improvement has 5 plumbing fixtures.

- 5 T or ☒ F A frame house of 1000 square feet on a slab will not have an adjustment for a basement.

- 6 ☒ T or F All detached garages are calculated using the **Summary of Other Buildings** section on the PRC.

- 7 T or ☒ F PRC-2 is used for calculating land values.

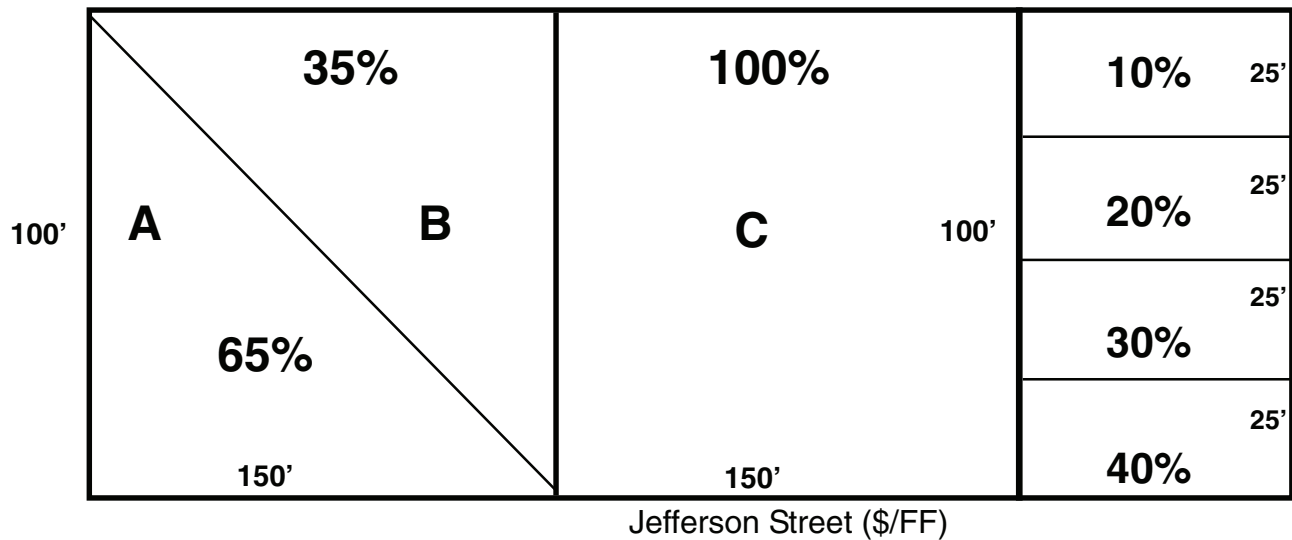
- 8 T or ☒ F The quality grade is used to determine a REL factor.

- 9 T or ☒ F To compute the value for an enclosed frame porch of 60 square feet and an enclosed frame porch of 40 square feet, you should add the square footage of the porches together and price out a porch of 100 square feet from the cost tables.

Exercises 7-1 and 7-2 worksheet

65/35 Rule

4-3-2-1 Theory



Exercise 7-1

\$100/FF

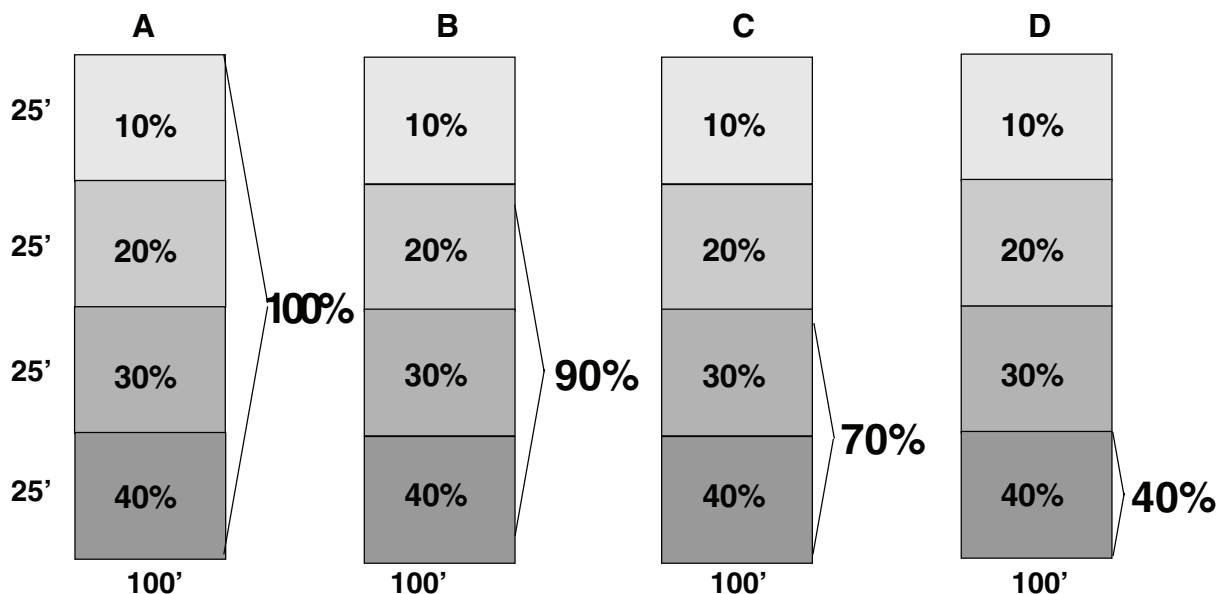
Compute the values for the three parcels above, with a standard depth of 100', if the front foot value is \$100 FF.

A **\$ 9,750** (150' X \$100 FF X 65%)

B **\$ 5,250** (150' X \$100 FF X 35%)

C **\$15,000** (150' X \$100 FF)

4-3-2-1 Theory



Exercise 7-2

Using the 4-3-2-1 theory, determine the value of the parcel segments.

Depth \$100/FF

100' **\$10,000** (100' X \$100 FF)

75' **\$ 9,000** (100' X \$100 FF X 90%)

50' **\$ 7,000** (100' X \$100 FF X 70%)

25' **\$ 4,000** (100' X \$100 FF X 40%)

Exercise 7-4

Calculating FF values and SF values

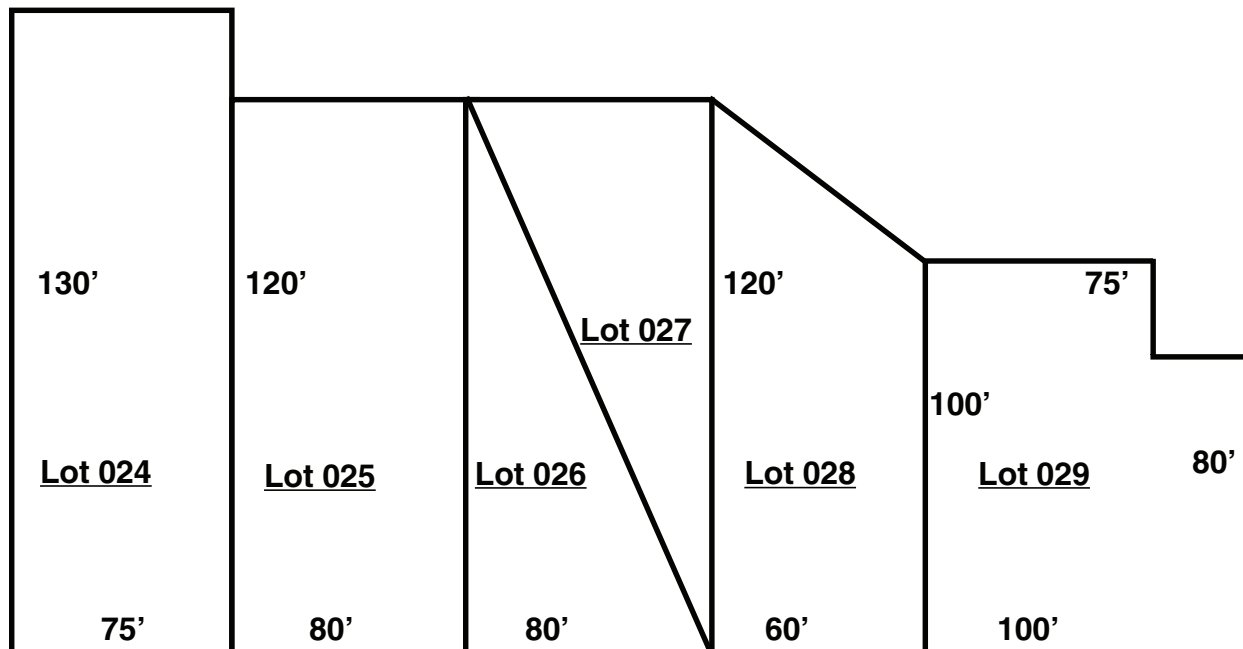
Calculate the FF values and the SF values for lots 024 through 029.

The depth for a standard lot is 120'

The FF value is \$140/FF

The SF value is \$.80/SF

Lot 024	FF value = <u>10,920</u> SF value = <u>7,800</u>	Lot 027	FF value = <u>3,920</u> SF value = <u>3,840</u>
Lot 025	FF value = <u>11,200</u> SF value = <u>7,680</u>	Lot 028	FF value = <u>8,064</u> SF value = <u>5,280</u>
Lot 026	FF value = <u>7,280</u> SF value = <u>3,840</u>	Lot 029	FF value = <u>12,425</u> SF value = <u>7,600</u>



Lot 024
 $75 \times 140 \times 1.04 = 10,920$
 $75 \times 130 \times .80 = 7,800$

Lot 025
 $80 \times 140 = 11,200$
 $80 \times 120 \times .80 = 7,680$

Lot 026
 $80 \times 140 \times 65\% = 7,280$
 $\frac{80 \times 120}{2} \times .80 = 3,840$
 Lot 027
 $80 \times 140 \times 35\% = 3,920$
 $\frac{80 \times 120}{2} \times .80 = 3,840$

Lot 028
 $60 \times 140 \times .96 = 8,064$
 $600 + 6,000 = 6,600$
 $\times .80 = 5,280$
 Average depth is 110'

Lot 029
 $75 \times 140 \times .91 = 9,555$
 $25 \times 140 \times .82 = 2,870$
 $12,425$
 $100 \times 80 \times .80 = 6,400$
 $75 \times 20 \times .80 = 1,200$
 $7,600$

Exercise 7-5

Site unit of value

You are appraising a subdivision that began to be developed 10 years ago. Now it is nearing the end of its development life cycle. Approximately 70 percent of the sites are interior sites, lots with trees, and sites with level terrain. The remaining 30 percent consists of corner sites, sites with no trees, and sites with rolling terrain. It appears that the market responds to differences in location and physical features.

The seven sales below have been verified as arm's length transactions. Using the market data, determine the contributory value for time, location, and physical features.

Site	Sales price	Sale date	Size	Location	Physical features
1	\$ 9,000	Current	75 x 200	Interior	Level - trees
2	\$ 8,500	Current	75 x 200	Corner	Level - trees
3	\$ 10,000	Current	75 x 200	Interior	Rolling - trees
4	\$ 9,000	1 year ago	75 x 200	Interior	Rolling - trees
5	\$ 8,000	Current	75 x 200	Interior	Level - no trees
6	\$ 6,500	1 year ago	75 x 200	Corner	Level - no trees
7	\$ 7,500	Current	75 x 200	Corner	Level - no trees

- Based on the above sales, a site that sold today is worth \$ 1,000 more than a site that sold a year ago.
(3 & 4 — 6 & 7)
- A site that is on rolling terrain is worth \$ 1,000 more than a site on level terrain.
(1 & 3)
- A site that has trees is worth \$ 1,000 more than a site without trees.
(1 & 5 — 2 & 7)
- An interior site is worth \$ 500 more than a corner site.
(1 & 2 — 5 & 7)

Unit 7

Review questions

Match these terms with the correct definition.

- | | |
|---|--|
| <u>B</u> "65-35 Rule" | A as vacant and at its highest and best use. |
| <u>C</u> "4-3-2-1 Theory" | B based on the premise that the utility of a right-angle triangular shaped lot is affected by its shape. |
| <u>D</u> Front foot | C the first 25 percent of depth of a lot represents 40 percent of the total lot value; the second 25 percent of depth represents 30 percent of the lot value; the third 25 percent of depth represents 20 percent of value; and the fourth 25 percent represents the final 10 percent of the lot value. |
| <u>E</u> Depth table | D a strip of land 1 foot wide running from the front to the rear of the lot. |
| <u>A</u> How land is valued | E based on the assumption that the front portion of the lot is more valuable on a unit basis than the rear portion. |
| <u>G</u> $\frac{b \times h}{2}$ | F unit value |
| <u>F</u> $\frac{SP}{\text{\#units}}$ | G area of a triangular-shaped lot. |

Unit 8

(Page 8-11)

Base price of floor x factor = adjusted floor price

Basement is 10' high \$30.90 x 1.01 = \$ 31.21

First floor is 12' high \$57.95 x .98 = \$ 56.79

Second floor is 16' high \$43.90 x 1.04 = \$ 45.66

Third floor is 8' high \$43.90 x .96 = \$ 42.14

(Page 8-12)

Refer to the schedule above and apply the appropriate size factor for the following structure.

17,850 SFGA .90 factor

13,500 SFGA .90 factor

10,500 SFGA 1.00 factor

2,775 SFGA 1.05 factor

(Page 8-13)

Referring to the shape adjustment table, indicate the appropriate shape adjustment factor for the following wall ratios.

8 1.43

22 .98

10.5 1.26

20.75 1.00

35.80 .88

14.6 1.10

Unit 8

(Page 8-16)

Referring to the schedule, indicate the appropriate factor for these frame bay sizes.

10' X 40' = 400 square feet .95 factor
(wood joist frame)

15' X 35' = 525 square feet 1.00 factor
(steel frame)

60' X 60' = 3,600 square feet 1.18 factor
(concrete frame)

(Page 8-16)

Referring to the schedule on the preceding page, indicate the appropriate factor for the following load bearing construction.

wood joists 1.00 factor

steel frame .82 factor

concrete frame .84 factor

Unit 8

(Page 8-17)

Size adjustment x shape adjustment x construction weight adjustment = BPA

Complete the following chain multiplication exercise.

- 1 Find the size adjustment factor for a building of 2,000 square feet.

$$\underline{1.05} \quad \times \quad 0.94 \quad \times \quad 1.18 \quad = \quad \underline{1.16} \text{ BPA}$$

- 2 Find the weight adjustment factor for a steel frame building with brick exterior walls that has a frame bay size of 10' x 36'.

$$0.90 \quad \times \quad 0.86 \quad \times \quad \underline{.91} \quad = \quad \underline{.70} \text{ BPA}$$

- 3 Find the weight adjustment factor for a wood joist frame building with stone exterior walls that has a frame bay size of 10' x 40'.

$$0.95 \quad \times \quad 0.91 \quad \times \quad \underline{.95} \quad = \quad \underline{.82} \text{ BPA}$$

- 4 Find the load bearing adjustment for a concrete frame building with load bearing construction.

$$1.05 \quad \times \quad 0.89 \quad \times \quad \underline{.84} \quad = \quad \underline{.78} \text{ BPA}$$

- 5 Find the shape adjustment factor for a building with a wall ratio of 34.95.

$$.90 \quad \times \quad \underline{.89} \quad \times \quad 1.18 \quad = \quad \underline{.95} \text{ BPA}$$

Property Record — Commercial — Industrial

PRC-4 (R-1/00) (opposite PRC-3)

Exercise 8-2 — PRC-4 for 02-20-200-002

Property Record — Commercial — Industrial															
Construction Specifications				Use		Data Bank		Description		Computation					
Foundation Sprd. Ftg. <input checked="" type="checkbox"/> Pile <input type="checkbox"/> Caisson <input type="checkbox"/> Other <input type="checkbox"/>				Store		1st Office		Vacant		B-2-3		SF Ground Area		3,060	
Wall Framing B 1 2 3 A <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>				Apt.		WH		Abandoned				Eff. Perm LF		198	
Roofing Wood <input type="checkbox"/> Shingle <input checked="" type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				Factory								CF of Bldg.		156,060	
Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				No. of Units								SF Wall Area		10,098	
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				Avg. Unit Size								Wall Ratio		43.90 x 1.02	
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				No. Rooms Per Unit								3 Sty. Brk		15.45	
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				Prorated @								Sched. Com			
Roofing Composition <input checked="" type="checkbox"/> Shingle <input type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				SF								Size		1.00 x Shape 1.10 x Weight 1.00	
Plumbing 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>				Frame								Base Price		178.41	
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				Frame								Adj. Base Price		196.25	
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				Exterior Walls								Heat		5.45	
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				Floors								A/C		5.45	
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				Wood								Electrical Light		9.60	
Roofing Composition <input checked="" type="checkbox"/> Shingle <input type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				Steel O/FP								Sprinkler		9.60	
Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				Reinf. Concrete								SF Price		211.30	
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				Load Bearing								SF		3,060	
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				Frame Bay - Bay Area								Subtotal		646.578	
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				SF								Plumbing		21,540	
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				Frame								Partitions			
Roofing Composition <input checked="" type="checkbox"/> Shingle <input type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				Store								Front		10,849	
Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				Basement unfinished								Canopy			
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				9'								Dock			
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				Party wall								Total		678,967	
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				51'								A		= FAC 1.10	
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				60'								Replacement Cost New		746,864	
Roofing Composition <input checked="" type="checkbox"/> Shingle <input type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				3 Sty brk bsmt								REL		.10	
Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				14'								Full Value		74,686	
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				14'								Total full value other buildings			
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				14'								Total full value all buildings			
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				Basement unfinished								Listed by:			
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				9'								Date:			
Roofing Composition <input checked="" type="checkbox"/> Shingle <input type="checkbox"/> Slate <input type="checkbox"/> Metal <input checked="" type="checkbox"/>				Party wall								Total full value other buildings			
Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				51'								Total full value all buildings			
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				60'								Total full value other buildings			
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Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				Basement unfinished								Total full value other buildings			
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Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				9'								Total full value all buildings			
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Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				51'								Total full value all buildings			
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				60'								Total full value other buildings			
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				14'								Total full value all buildings			
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				Basement unfinished								Total full value other buildings			
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				9'								Total full value all buildings			
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Plumbing Type Wood <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Conc. <input type="checkbox"/>				51'								Total full value all buildings			
Store front Siding <input type="checkbox"/> Masonry Bk/Brk <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Glass <input type="checkbox"/>				60'								Total full value other buildings			
Finish Unfinished <input type="checkbox"/> Finished Open <input checked="" type="checkbox"/> Finished Divd. <input checked="" type="checkbox"/>				14'								Total full value all buildings			
Heat Cent. Wm. Air <input checked="" type="checkbox"/> Ht. Wt/Steam <input checked="" type="checkbox"/> Unit Heaters <input checked="" type="checkbox"/> None <input type="checkbox"/>				Basement unfinished								Total full value other buildings			
Air Conditioning Central Unit <input type="checkbox"/> None <input type="checkbox"/>				9'								Total full value all buildings			
Roofing</															

Unit 8

Review questions

- 1 T or ☒ F A commercial building's first floor has a wall height of 16'. The wall height adjustment would be .98.
- 2 T or ☒ F A 2-story commercial building with a full basement has a width of 40' and length of 80'. The first floor wall height is 16', basement height is 9', and the second story wall height is 14'. The square feet of wall area would be 7200.
- 3 ☒ T or F Using the building specifications above, the wall ratio would be 13.33.
- 4 T or ☒ F Always adjust your square feet of ground area (SFGA) by the eave height to arrive at the cubic foot.
- 5 A commercial building with a width of 100' and a length of 200' and an overall height of 36' would have
 - a size adjustment of .95
 - ☒ b shape adjustment of .89
 - c load bearing adjustment of .82
 - d frame bay adjustment of 1.00
- 6 A 2-story commercial building on a slab with a length of 70' and a width of 50' is fully sprinkled. What is the sprinkled adjustment?
 - a sprinkler costs are included in base price
 - ☒ b sprinkler cost of \$6.40 per square foot
 - c sprinkler cost of \$17,200
 - d sprinkler cost of \$6.20 per square foot
 - e they were too expensive and the landlord could not afford to install them
- 7 Using the same dimensions above, what would be the air conditioning adjustment amount placed in the computation ladder if the first floor was used as a store and the second floor as an office?
 - a \$11.05 per square foot
 - b included in the base price
 - ☒ c \$11.80 per square foot
 - d \$12.70 per square foot
 - e \$21,700

Exercise 9-1 worksheet

Assessment/sales ratio study and determining a COD

Assessed value	Sale price	Sales ratio %	Median	Deviation %
\$10,000	\$35,000	28.57	<u>28.72</u>	<u>.15</u>
17,500	42,500	<u>41.18</u>		<u>12.46</u>
1,900	12,000	15.83		<u>12.89</u>
9,000	26,000	<u>34.62</u>		<u>5.90</u>
9,000	31,000	29.03		<u>.31</u>
1,400	8,000	<u>17.50</u>		<u>11.22</u>
7,200	23,000	31.30		<u>2.58</u>
8,000	24,500	<u>32.65</u>		<u>3.93</u>
5,600	19,500	28.72		<u>0.00</u>
14,000	50,000	<u>28.00</u>		<u>.72</u>
19,000	67,000	28.36		<u>.36</u>

Sum of deviations 50.52

Sale ratios
ranked

Formulas

1 15.83

Sales ratio = $\frac{\text{assessed value}}{\text{sales price}} \times 100(\%)$

2 17.50

Deviation = sales ratio - median*

3 28.00

Average deviation = $\frac{\text{sum of deviations}}{\# \text{ of sales}}$ **$\frac{50.52}{11} = 4.59$**

4 28.36

5 28.57

COD = $\frac{\text{average deviation}}{\text{median}} \times 100(\%)$ **$\frac{4.59}{28.72} \times 100(\%) = 15.98$**

6 28.72

7 29.03

*Ignore plus or minus signs when
subtracting the median from the sales ratios.

8 31.30

9 32.65

10 34.62

11 41.18

Unit 9

Review questions

- 1 ☒ T or F Equalization means a factor is applied to each jurisdiction so that all jurisdictions are assessed at the same average percentage of market value.
- 2 T or ☒ F A sales ratio study is used to determine the percentage of homes that have sold during a certain period of time.
- 3 T or ☒ F The state equalization factor is always 1.0000.
- 4 T or ☒ F Only jurisdictions with a COD of 16 qualify for the bonus.

Unit 10

Review questions

- 1 List four types of special properties assessors may encounter.

Solar energy

Residential developments

Historic residences

Farmland

- 2 List two properties assessed by the state.

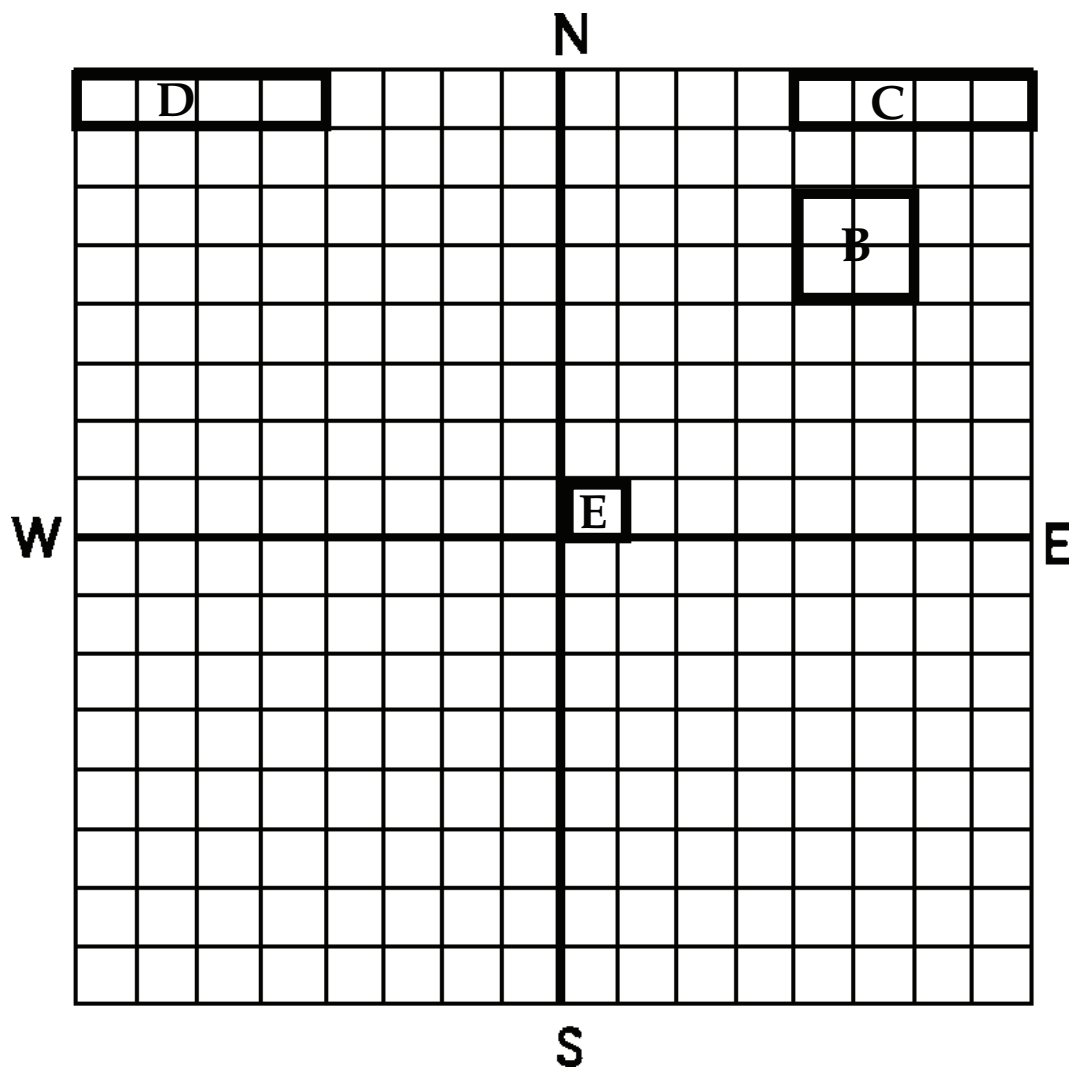
Railroad operating property, railroad right-of-way and track

Pollution-control facilities, pollution-control devices

Exercise 11-1

Legal descriptions

Section 32, township 12 south, range 2 west



Unit 11

Review questions

Match these terms to the correct definition.

- | | |
|---------------------------------|---|
| <u>E</u> Section | A abbreviated legal description consisting of the area, section, block, parcel, and unit numbers. |
| <u>F</u> Base line | B 6 mile X 6 mile square block of land numbered from left to right. |
| <u>G</u> 3rd Principal Meridian | C a legal description that describes the perimeter of a property. |
| <u>B</u> Township | D a 14-digit number denoting geographic location and use. |
| <u>C</u> Metes and bounds | E a township has 36 of these and they are numbered in a serpentine fashion. |
| A or
<u>D</u> PIN | F line of latitude running east and west through the state of Illinois. |
| A or
<u>D</u> PIN | G line of longitude running north and south through the state of Illinois. |

Unit 12

Review questions

- 1 List 4 resources available to assessors for assistance.

CCAO _____

Other assessors _____

States attorney _____

Department of Revenue _____

- 2 Do township assessors operate under a code of ethics?

Yes _____

